LIFE SCIENCE AREAS OF NATURAL AND SCIENTIFIC INTEREST IN SITE DISTRICT 7-1

A Review and Assessment of Significant
Natural Areas in Site District 7-1

September 1984

Ontario

Ministry of
Natural
Resources

OFER #8402

LIFE SCIENCE AREAS OF NATURAL AND SCIENTIFIC INTEREST IN SITE DISTRICT 7-1

A Review and Assessment of Significant Natural Areas in Site District 7-1

September 1984

R. Klinkenberg

Parks and Recreational Areas Section
Southwestern Region, London

Ontario
Ministry of Natural Resources
Hon. Alan W. Pope, Minister
John R. Sloan, Deputy Minister

The full citation for this report is:

Klinkenberg, R. 1985. Life Science Areas of Natural and Scientific Interest in Site District 7-1: A Review and Assessment of Significant Natural Areas. Parks and Recreational Areas Section, Ontario Ministry of Natural Resources, Southwestern Region, London, Ontario. viii + 82 pp. + folded map, illus.

For convenience, this report may be referred to as OFER #8402. It is one of a number of Open File Ecological Reports comprised of reconnaissance surveys and inventories of ecological areas in Ontario.

Additional copies of this report are obtainable only from the Ontario Ministry of Natural Resources through the following locations: Central Region, 10760 Yonge Street, Richmond Hill, Ontario L4C 3C9, Telephone (416) 884-9202; Southwestern Region, at the nearest District Office of the Ministry of Natural Resources.

Reference copies of this report are available in the above offices, and the Natural Resources Library, 4th Floor Whitney Block, Room 4540, 99 Wellesley Street West, Toronto, Ontario M7A 1W3. Copies have been sent to university libraries in Southern Ontario.

ISBN 0-7743-9521-A

© 1984 Government of Ontario
Printed in Ontario

PREFACE

In 1977, the Parks and Recreational Areas Program of the Ontario Ministry of Natural Resources, with special funding approved by Management Board of Cabinet, initiated a provincial survey of natural areas in connection with park system planning. A parallel initiative focused on the identification of geological sites representative of Ontario's earth science diversity. The mandate for these surveys stems from the protection objective of the Ontario Provincial Parks Policy (1978), which is "to protect provincially significant elements of the natural and cultural landscapes of Ontario".

The overall objective of the natural areas survey is to identify a series of ecological areas that comprise the spectrum of natural landscapes, environments and biotic communities in Ontario. This objective issues from a Cabinet endorsed guideline of the 1978 parks policy which recognizes the role of provincial parks in protecting "a system of features representative of Ontario's life science history and diversity". With this aim, technical guidelines help to direct the selection, documentation and evaluation of natural areas throughout the site regions and site districts of the province.

Between 1980 and 1982, evaluations of remnant natural areas were undertaken in the site districts within the Central and Southwestern Regions of the Ministry. Through these assessments, the finest natural areas were chosen to complement natural features already represented within a series of Nature Reserves proposed through an earlier review of the provincial parks and park reserves (Lindsay and Hanna, 1980). In addition, natural areas identified through this survey complement the Candidate Nature Reserves already proposed for the Niagara Escarpment Planning Area (Parks Planning Branch, 1976).

The present report was issued as a draft in 1981 under the title "An Identification and Evaluation of Life Science Candidate Nature Reserves in Site District 7-1". Now in the final edition, it is one of a series of such reports which have been completed to date and are available as "Open File Ecological Reports". The findings of these reports have provided the basis for many of the "Recommended Provincial Parks" announced by the Minister in June 1983, and the "Areas of Natural and Scientific Interest" designated in the District Land Use Guidelines also released at that time.

Although evolution of the land use planning process since 1981 has produced new terminology incorporating natural areas, this nomenclature is not used in this report. Rather, natural areas are referred to as either Candidate Nature Reserves or as Significant Sites. This is distinct from the new terminology, as used in the District Land Use Guidelines (OMNR, 1983), which groups natural areas and geological sites as Areas of Natural and Scientific Interest (ANSIs).

According to the District Land Use Guidelines, ANSIs may vary in level of significance. The most significant of these, those referred to as Candidate Nature Reserves in this report, make the greatest contribution to the Ministry's protection objective and are listed in the District Land

Use Guidelines. ANSIs which contribute to a lesser degree to the provincial protection objective are referred to as Significant Sites in this report and are considered to be at least regionally significant. The policy statement for Areas of Natural and Scientific Interest is appended.

Site district evaluations in the Central and Southwestern Regions of the Ministry were carried out by three biologists -- K. M. Lindsay, R. Hanna and R. Klinkenberg. Lindsay coordinated and directed the work, and evaluated Site Districts 6-5, 6-7 and 7-2. Hanna examined Site Districts 6-2, 6-6, 6-8, 6-13, 7-4 and 7-6; Klinkenberg examined Site Districts 7-1 and 6-1. While all three biologists shared common objectives and collaborated in developing evaluation techniques, each undertook field work and evaluation using methods appropriate to their respective site districts.

Each site district report includes an analysis and discussion of the natural features and natural areas of the site district, a discussion of the methodology, recommendations for further work and possible methods of natural areas protection. Check-sheets for Candidate Nature Reserves are appended, as are brief descriptions of other natural areas in the site district.

The information collected during the site district assessments forms the foundation of a provincial natural areas data base. This data base is being updated as new information is obtained. It is an important component of the planning process at district, regional and provincial levels of the Ministry. Readers are invited to add to the data base, either by contributing to studies conducted by the Ministry, or through information contributed to other groups seeking to protect natural areas.

Although site district assessments were designed to identify those natural areas which contribute mainly to the protection objective of the Ministry, this information should prove useful to regional and local governments, conservation authorities and other organizations involved with the identification and protection of significant natural areas. Protection of natural areas may be achieved in several ways, including the purchase of sites by outside agencies. Where natural areas designated as ANSIs occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur provide for the protection of identified values. On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of the significant features on their properties and seek the owners' cooperation in protecting such features.

ACKNOWLEDGEMENTS

Many people contributed to the preparation of these site district reports. H. J. Featherston, H. Pronk, J. Griffin and G. Rodgers (Parks and Recreation Section, Central Region), and E. E. Murphy, G. E. Martelle and I. Seddon (Parks and Recreation Section, Southwestern Region), played a major role in the administration of this project. Technical direction for the project came from an informal committee composed of the Parks and Recreation Coordinators of both regions, H. J. Featherston, E. E. Murphy, and G. E. Martelle, the Regional Park Planners, G. Rodgers, W. McNab and I. Seddon, and T. J. Beechey (Life Science Coordinator, Parks and Recreational Areas Branch, Queen's Park). Discussions on technical matters with T. J. Beechey, I. Seddon, W. McNab and G. Rodgers proved especially valuable. Biologists working on parallel assessments across the province, D. G. Cuddy, S. Gray, I. D. Macdonald, T. Noble, H. Simpson and B. Thacker contributed through their discussions of the methodology of these projects.

Throughout the site district 7-1 study K. Lindsay provided overall direction, discussion, advice and encouragement. P. Terpstra carried out the initial background research and map preparation. B. Klinkenberg assisted with field work and background data analysis, and reviewed the draft report. His contribution to the study was invaluable.

A. A. Reznicek, P. D. Pratt, M. J. Oldham, D. Smith, A. Woodliffe and D. McLeod provided over all site information for the site district. Discussions about new and previously documented sites, and about the project in general, were much appreciated. W. McNab made available various background documents and discussed the project in general. The author would like to extend a special thank you to K. Lindsay and B. Klinkenberg for their encouragement and assistance throughout this study.

The draft Site District 7-1 report was reviewed by selected experts familiar with the geographical area under study in Site District 7-1. Comments made by Dr. A. A. Reznicek, M. Oldham, Dr. P. Prevett, G. Allen and A. Woodliffe are appreciated and have been added to the data base at district and regional offices and the main office of the Ministry. These reviews generally confirmed the selection of ANSIs made by this site district study.

TABLE OF CONTENTS

		Page Number
PREFACE		i
ACKNOWLEDGEMENTS		iii
TABLE OF CONTENTS		v
LIST OF MAPS AND TABLES		vi
SUMMARY		vii
1. INTRODUCTION		1
2. METHODOLOGY		9
3. CANDIDATE NATURE RESERVES		15
4. CONCLUSIONS		19
GLOSSARY		21
APPENDIX A:	PARKS AND PARK RESERVES WITH NATURE RESERVE POTENTIAL IN SITE DISTRICT 7-1	23
APPENDIX B:	CANDIDATE NATURE RESERVE CHECKSHEETS AND ENVIRONMENTAL DATA CARDS FOR SIGNIFICANT SITES IN SITE DISTRICT 7-1	37
APPENDIX C:	DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE	75
APPENDIX D:	POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST	81
BIBLIOGRAPHY		83
MAP REFERENCES		

LIST OF MAPS AND TABLES

Page Number

Figure Number

1. Site Regions and Districts of Southern Ontario 2

2. Location of Present or Proposed Provincial Nature Reserves and Provincial Parks with Proposed Nature Reserve Zones in Site District 7-1 8

3. Location of Candidate Nature Reserves in Site District 7-1 16

Table Number

1. Summary of Natural Features Analysis and Candidate Nature Reserve Selection Procedure by Physiographic Region and Landform for Site District 7-1 4

2. Time Allocation for Natural Features Analysis and Candidate Nature Reserve Selection Procedure 13

Map Number

1. Candidate Nature Reserves and Significant Sites in Site District 7-1 (See Pocket)

SUMMARY

Site District 7-1, Site Region 7, is a predominantly lowland district located in the extreme southwestern portion of Ontario. The boundaries of the site district are: Lake St. Clair and the St. Clair River on the north, the Detroit River on the west, and Lake Erie on the south. The northeastern boundary approximately follows a line drawn between Clearville on the south, and a spot just north of Port Lambton on the St. Clair River. The Erie Archipelago, a unique chain of islands which include the southernmost point of land in Canada, occurs within the boundary of this site district.

Representation of four physiographic regions is found in Site District 7-1: St. Clair Clay Plains, Bothwell Sand Plain, Erie Spit, and Pelee Island (Chapman and Putnam, 1973). Landforms present in the site district include clay plain, sand plain, limestone plain, bevelled till plain, shoreline beaches and cliffs, and till moraine. In addition to the rivers which form part of the district boundaries, two major river systems are located in the site district: the Thames River and the Sydenham River, both of which drain into Lake St. Clair.

As a result of its primarily agricultural character, less than five percent of this site district remains in a natural state. An analysis of the natural features indicates that the following vegetation-landform features are representative of Site District 7-1: shoreline marshes and associated wetlands, shoreline sandspit and wetland complexes, creek valleys with adjoining uplands, prairies and alvars, and lowland/upland forest complexes. Some representation of these features is provided by six of the eight provincial parks and park reserves located in the site district. These are either present or proposed provincial nature reserves, or contain proposed nature reserve zones. They are: Wheatley Provincial Park, Rondeau Provincial Park, Ojibway Prairie Provincial Nature Reserve, East Sister Island Provincial Nature Reserve, and Fish Point and Lighthouse Point Park Reserves (Lindsay, 1979; Lindsay and Klinkenberg, 1979).

Following an overview of the remaining natural features of the site district, outside of provincial parks and park reserves, nine candidate nature reserves were chosen to complete feature representation in Site District 7-1. All nine candidate nature reserves are recommended for protrection.

SHORELINE MARSHES AND ASSOCIATED WETLANDS

Lake St. Clair Marshes (40J/8 835920)
Big Creek Marsh (40J/3 300560)

SHORELINE SANDSPIT AND WETLAND COMPLEXES

Point Pelee National Park (40G/15 740470)

CREEK VALLEYS AND ADJOINING UPLANDS

Cedar Creek (40J/2 500535)

PRAIRIES AND ALVARS

Stone Road Prairie and Alvar (40G/15 640240)
Prairie Remnants Adjacent to Ojibway Prairie Provincial Nature Reserve (40J/6 295810)

LOWLAND/UPLAND FOREST COMPLEXES

Sinclair's Bush (40I/5 225855)
Oxley Poison Sumac Swamp (40J/2 450520)
Middle Island (40G/10 600157)

As part of the site selection process an additional 27 significant sites were identified in Site District 7-1. These sites are recommended for protection through the planning processes of municipal, provincial and federal governments and conservation authorities.

1. INTRODUCTION

Site District 7-1, Site Region 7, is located in the extreme southwestern portion of Ontario (Figure 1). It is bound on the south by Lake Erie, on the north by Lake St. Clair and the St. Clair River, and on the west by the Detroit River. The northeastern boundary is formed by a line running from Clearville on the Lake Erie shoreline, to a spot just north of Port Lambton on Lake St. Clair. Site District 7-1 includes Essex County, part of Kent County, a small portion of Lambton County, and all of the Canadian portion of the Erie Archipelago - Pelee Island, East Sister Island, Middle Island, Hen Island, Little Chicken Island, Middle Sister Island, Big Chicken Island, and North Harbour Island. These islands represent the southernmost lands in Canada.

The purpose of this study was to select candidate nature reserves and to identify regionally significant sites representative of the remaining natural vegetation-landform features of Site District 7-1, Site Region 7. Hills (1959) defined a site region as an area of land within which the response of the vegetation to the features of the landform follows a consistent pattern. Each site region is subdivided according to characteristic physiographic zones which set apart fairly large areas; these Hills called site districts. Hills (1959) described Site Region 7 as a smooth lacustrine plain in the extreme west, with a section of undulating bevelled till plain with lacustrine deposits between the ridges. Grey-brown podsolics were the common soils of well-drained sites, with a high proportion of dark grey gleisolics also occurring. The forest climate type was described as dry-humid Great Lakes hardwoods. Site District 7-1, one of the five site districts of Site Region 7, was described as a smooth plain of moderate lime clay broken by ridges of sand and gravel.

There is little relief in Site District 7-1, with elevations generally ranging between 175 and 213 metres (575 to 700 feet). The Blenheim Moraine, which is 15 to 30.5 metres (50 to 100 feet) higher in spots, is an exception. Limestone underlies Essex County and the adjacent part of Kent County, while the remainder of the region is underlain by black shale (Chapman and Putnam, 1973).

Four of the minor physiographic regions outlined by Chapman and Putnam (1973) fall within Hills' Site District 7-1. These are the St. Clair Clay Plain, Bothwell Sand Plain, Erie Spits and Pelee Island. These physiographic regions and landform types were used in the initial assessment of the site district in order to obtain an understanding of the diversity and array of features present.

The St. Clair Clay Plain occupies eighty percent of the site district. Of the landforms within this physiographic region, bevelled till plain covers the greatest area (fifty-five percent), followed by clay palin (twenty-five percent). The bevelled till plain is broken uniformly by old shoreline beaches in the southwestern portion of the site district. The Bothwell Sand Plain physiographic region, an area made up entirely of sand plain, covers ten percent of the site district.

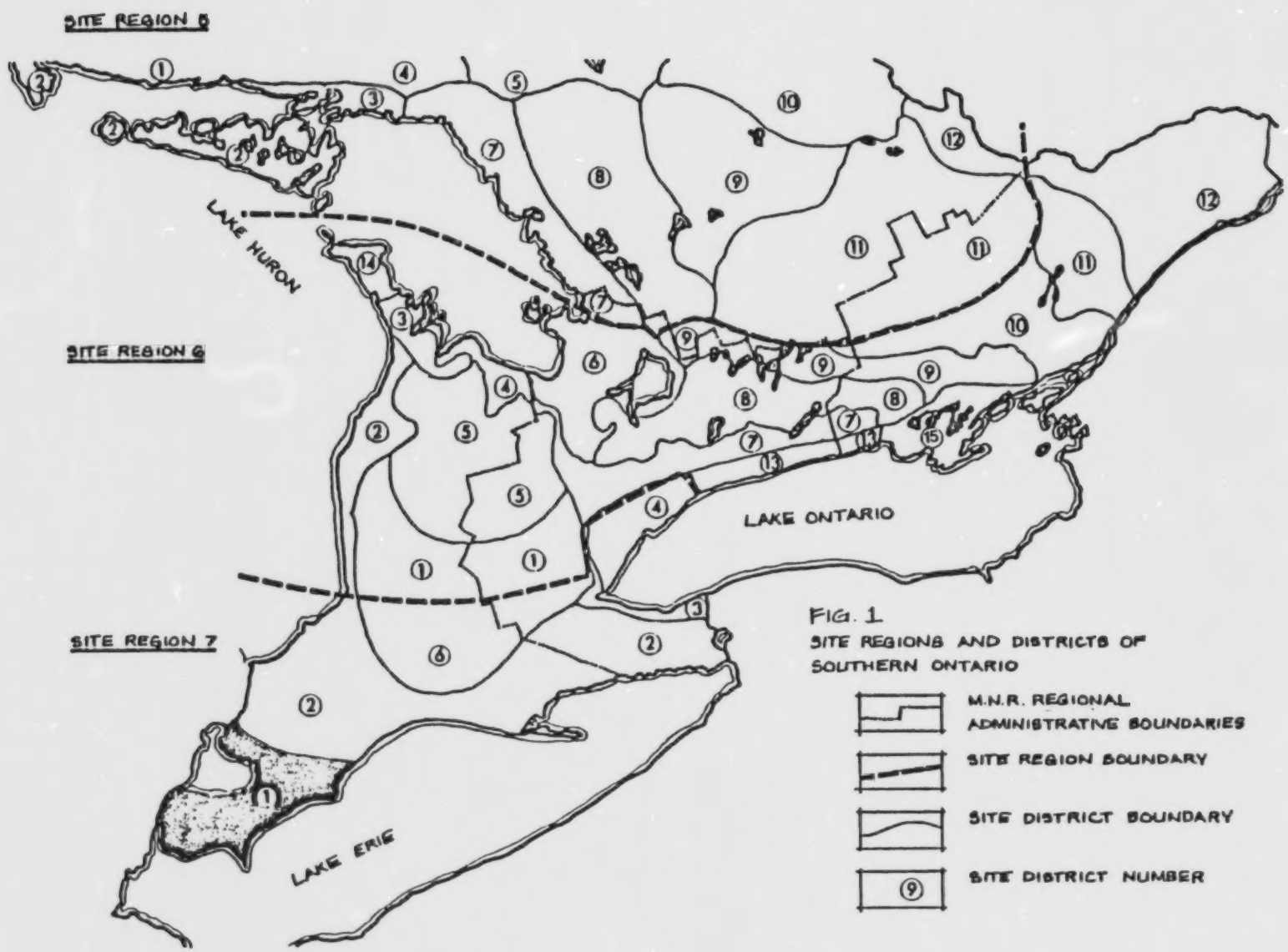


FIG. 1
SITE REGIONS AND DISTRICTS OF SOUTHERN ONTARIO

The Erie Spits and Pelee Island physiographic regions each occupy less than five percent of the site district, but support the greatest percent remaining natural area in the site district. Approximately seventy percent of the Erie Spits physiographic region is marked by high bluffs which are constantly shifting inland, while the spits are gradually extending into the lake (Chapman and Putnam, 1973). The Pelee Island physiographic region is composed mainly of bevelled till plain, with smaller areas of limestone plain and shoreline beaches and cliffs.

Table 1 presents an analysis of the landscape of Site District 7-1 and its remaining natural features. Physiographic regions (as per Chapman and Putnam, 1973) are listed according to decreasing areal coverage in the site district. For each physiographic region, component landform features are given based on Chapman and Putnam 1972 and 1973. The percentage and types of natural areas remaining in the site district were estimated based upon a review of the 1:50,000 topographic maps which cover the site district.

An estimated five percent of the landscape of Site District 7-1 remains in natural condition. Some parts of the site district, such as Pelee Island, contain slightly higher percentages of natural landscape. Although some representation of the array of natural features of this site district is offered by six of the provincial parks and park reserves found in this district, several features are either not currently represented or are not well represented. These are indicated in Table 1 and include: creek valleys with adjoining uplands, shoreline marsh and sandspit wetlands, prairie sites, features typical of limestone plain, upland woods and upland/lowland complexes.

Eight provincial parks and park reserves are located in Site District 7-1. Two of these sites contain recommended Nature Reserve zones, while four others are present or proposed Provincial Nature Reserves. A summary of the nature reserve representation offered by these six provincial parks, based on Lindsay (1979) and Lindsay and Klinkenberg (1979) is presented in Table 1. The location of these six provincial parks in the site district is shown in Figure 2. Check-sheets for these parks are included in Appendix 1.

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-1

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
St. Clair Clay Plains (also in 7-2)	80	bevelled till plain	55	-very little, a very few woodlots (10-100 ha) -creek valleys	Wheatley Provincial Park	-deciduous forest on clayey silt till plain	25 ha (65 acres)	creek valleys with adjoining uplands	Cedar Creek (40J/2 500535)
		clay plain	25	-very little, a few woodlots (10-100 ha) and marshes along Detroit River	---	---	---	lowland/upland woodlots	Sinclair's Bush (40I/5 225855)
		sand plain	15	-very little, a few woodlots (10-100 ha)	Wheatley Provincial Park	-deciduous forest on sand uplands	15 ha (35 acres)	lowland forest on sandy lowlands	Oxley Poison Sumac Swamp (40J/2 450520)
				-roughly 10 percent near Windsor, mainly savannah, prairie and old fields	Ojibway Prairie	-tall grass prairie -oak savannah (pin oak-black oak) -old fields with prairie species	---	additional prairie sites	Prairie Remnants adjacent to Ojibway Prairie Provincial Nature Reserve (40J/6 295810)

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-1

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
St. Clair Clay Plains (cont'd)				-marshes along Lake St. Clair and Walpole Island (10%), the St. Clair Delta	---	---	---	shoreline marshes	Lake St. Clair Marshes (40J/8 835920)
		till moraine	5	-a very few woodlots	---	---	---	---	---
		peat and muck	5	-50% to 70% of major organic deposits remain as marshes	---	---	---	shoreline marshes	Big Creek Marsh (40J/3 300560)
Bothwell Sand Plain (also in 7-2)	10	sand plain (over clay)	100	-a few small woodlots of less than 40 ha	---	---	---	---	---
Erie Spits (also in 7-2)	<5	spits composed of low sand bars separated by wetlands	100	-about 70% remains in natural vegetation	Rondeau Provincial Park	-coastal sandspit with deciduous forest complex and sandy shoreline sand prairie associations	900 ha (2000 acres)	additional shoreline sandspit/wetland complexes	Point Pelee National Park (40G/15 740470)

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-1

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
Erie Spits (cont'd)						-portion of a Great Lakes Shoreline Marsh	150 ha (370 acres) Additional 225 ha (550 acres) proposed	additional shoreline marsh	
Pelee Island	<5	bevelled till plain (level clay plain)	80	-very little remains (less than 3%) -almost no natural area left	Lighthouse Point Park Reserve	-flooded clay plain with re-generating marsh	78 ha (190 acres)	---	Middle Island (40G/10 600157)
					Fish Point Park Reserve	-clay plain with deciduous swamp and fields	55 ha (140 acres)	---	---
		limestone plain	15	-several fair-sized natural areas remain up to 20 ha (50 acres)	Lighthouse Point Park Reserve	-limestone plain with hackberry-blue ash savannah -old fields	22 ha (54 acres)	additional features of limestone plain (alvar, prairie, and savannah)	Stone Road Alvar (40G/15 640240)

TABLE 1. SUMMARY OF THE NATURAL FEATURES ANALYSIS AND NATURE RESERVE SELECTION PROCEDURE BY PHYSIOGRAPHIC REGION AND LANDFORM FOR SITE DISTRICT 7-1

ANALYSIS OF NATURAL FEATURES OF SITE DISTRICT					FEATURES REPRESENTED BY CANDIDATE NATURE RESERVES IN PROVINCIAL PARKS/RESERVES			FEATURES MISSING FROM PROVINCIAL PARKS AND PARK RESERVES	CANDIDATE NATURE RESERVES SELECTED TO REPRESENT THE MISSING FEATURES
Physiographic Regions wholly or partly within Site District	Proportion of Site District covered by Physiographic Region	Landforms found within Physiographic Region	Proportion of Physiographic Region occupied by each Landform	Types of Natural features remaining on these Landforms and proportion remaining in a Natural Condition	Park Name	Feature(s)	Approx.Area		
Pelee Island (cont'd)					Fish Point Park Reserve	-limestone plain with hawthorn scrub	4 ha (10 acres)	---	---
					East Sister Island	-limestone plain with lowland swamp and upland hackberry	15 ha (36 acres)	---	---
		shoreline sand dune and bar features	5	-most of feature remains natural, 70% or more	Lighthouse Point Park Reserve	-wooded sand dunes	3 ha (8 acres)	---	---
					Fish Point Park Reserve	-coastal sandspit and lagoon	50 ha (120 acres)	---	---

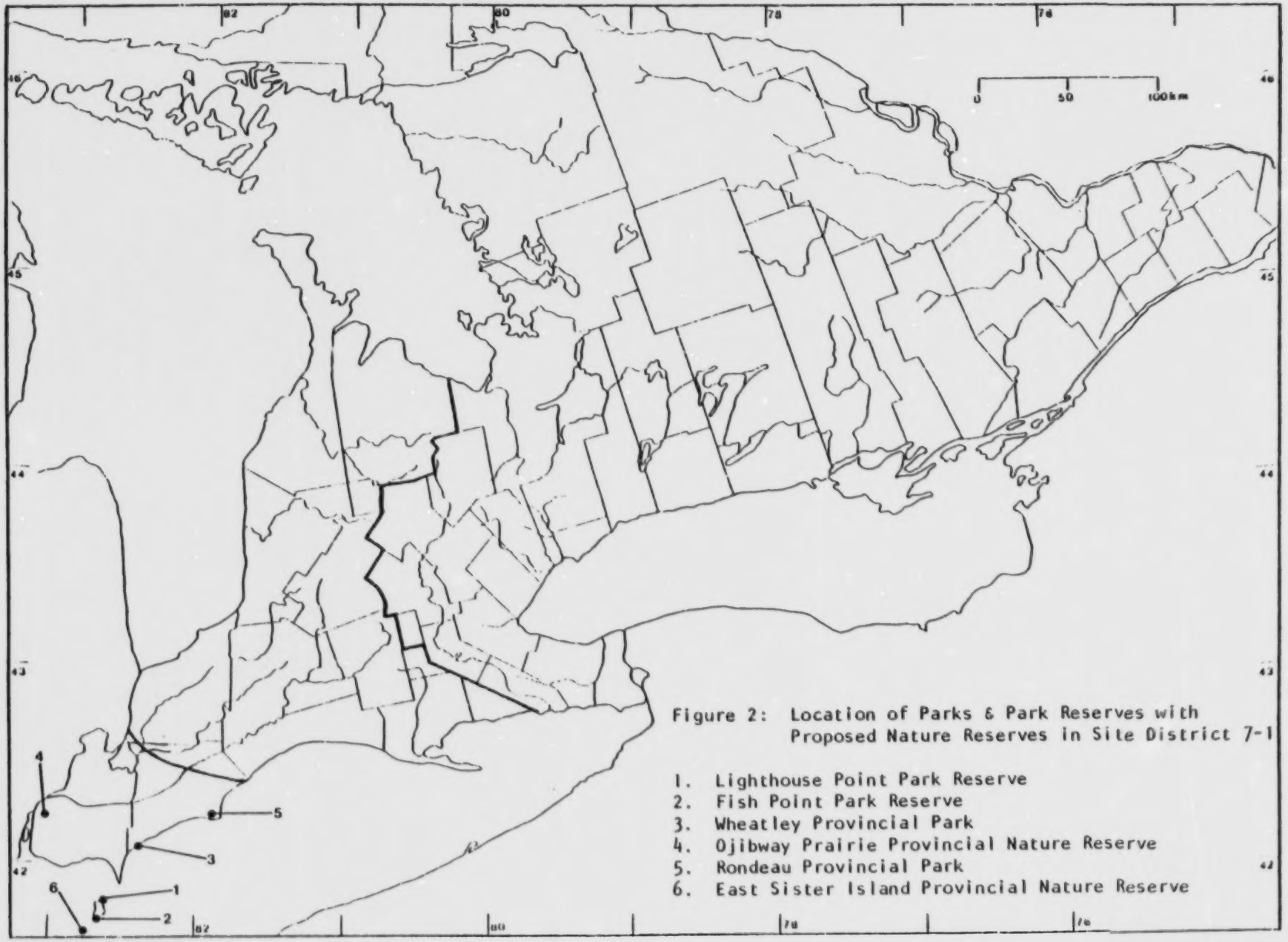


Figure 2: Location of Parks & Park Reserves with Proposed Nature Reserves in Site District 7-1

1. Lighthouse Point Park Reserve
2. Fish Point Park Reserve
3. Wheatley Provincial Park
4. Ojibway Prairie Provincial Nature Reserve
5. Rondeau Provincial Park
6. East Sister Island Provincial Nature Reserve

2. METHODOLOGY

The following section outlines the four steps taken during the analysis of natural features found in Site District 7-1 and in the selection of candidate nature reserves.

(i) Natural Features Analysis

The protection objective of the Ontario Provincial Parks Policy (1978) is "to protect provincially significant elements of the natural and cultural landscape of Ontario". To address the life science component of the protection objective, an assessment of life science features with nature reserve potential within the provincial parks system in Central and Southwestern Regions of the Ontario Ministry of Natural Resources was carried out (Lindsay and Hanna, 1980). Following this assessment, the provincial parks program began to identify the natural features which were not included in the existing provincial parks system in these administrative regions. For this purpose, site districts, as defined by Hills (1959), served as an ecological framework for the analysis of the diversity of natural features in southern Ontario in general, and in the Central and Southwestern administrative regions of the Ontario Ministry of Natural Resources in particular. An initial overview of the natural features characteristic of each site district was undertaken. This overview for Site District 7-1 is summarized in Table 1.

Site District 7-1 was initially assessed in January and February 1981. This assessment was revised in the fall and winter of 1982 and 1983. As a part of the Natural Features Analysis, the minor physiographic regions of Chapman and Putnam (1973) were used to divide the site district into distinctive landform complexes. The proportion of the site district covered by each physiographic region was estimated. Physiographic maps were used to tabulate the landforms of each physiographic region and to derive their relative importance within the site district as a whole. After scanning 1:50,000 topographic maps, the prominent natural features associated with various landform types were recorded, along with an estimate of the percentage of natural area remaining in a relatively undisturbed condition. A final statement about the vegetation-landform features typical of the site district, but missing from the provincial parks system, was the end result of the natural features analysis.

The remainder of the study focused on selecting and documenting the best examples of the dominant natural features of the site district which were identified through the Natural Features Analysis described above. Sections (ii) to (iv) of the Methodology describe the steps followed. Table 2 tabulates the time spent on each step.

(ii) Review of Background Information

Background information on sites of biological significance had already been compiled and mapped on a set of 1:50,000 N.T.S. maps on file at the Parks and Recreation Section, Ministry of Natural Resources, Central Region, Richmond Hill. The background information available for the site district was summarized according to 1:50,000 N.T.S. map sheets and physiographic regions, by P. Terpstra. These summaries are presented in Appendix C. The major sources of information for this site district included Environmentally Sensitive Areas (ESA) reports, Ministry of Natural Resources Sensitive

Areas and internal reports, International Biological Program (IBP) check-sheets and previous field work by the author throughout Kent, Essex and Lambton Counties. Examination of airphotos and other government reports provided additional information.

Topographic and physiographic maps and 1978 airphotos were reviewed in conjunction with the information on documented sites of biological significance in order to select sites with representative life science features and nature reserve potential. For portions of the study area with little or no background information, sites were chosen strictly from maps. The 1978 airphotos for these sites were examined and after additional selection, a list of sites for field checking was prepared.

The following five criteria formed the basis of all phases of site selection and evaluation. Sites illustrating similar features were compared in terms of representation, diversity, condition, ecological considerations and special features.

(a) Representation - Representation of the remaining natural features of the site district was of primary importance. The dominant vegetation-landform features of the site district were given special emphasis.

(b) Diversity - Diversity was appraised in terms of the number and range of vegetation-landform features or habitats found within a site. The representation value of a site usually increases in proportion to its habitat diversity.

(c) Condition - The degree of past disturbance to the main feature(s) of the site was assessed. Logging, grazing, fire, drainage, flooding, mining, housing developments, transportation and utility corridors and recreation were some of the impacts that were considered. Because all of southern Ontario has been affected by human disturbance to varying degrees, none of the sites selected are pristine.

(d) Ecological Considerations - Ecological considerations such as size, shape, buffering from adjacent land use and watershed location were also weighed. Generally, larger sites, which would be more likely to maintain stable and diverse natural communities, were chosen over smaller sites. However, for certain life science features only small remnant sites are left, especially in Site Region 7. In such cases, sites that were close together or linked were ranked higher than widely spaced, small areas. Recent work on island biogeography (Diamond, 1975) suggests that species extinctions are less likely to occur in larger sites, linked sites or closely spaced sites than in small, isolated sites. Headwater areas and watershed units where some degree of control over inputs would be possible were given special attention.

(e) Special Features - Allowance was also made for special features, such as the presence of rare and endangered species, species of phytogeographical interest, nesting sites for colonial birds, such as heronries, and concentrations of breeding and/or migratory waterfowl. The special features criterion was of secondary importance and was applied only after representation, diversity, condition and ecological considerations had been assessed. Because detailed and complete biological data was lacking for most sites, caution was exercised in comparing the special features of sites with different levels of background data.

(iii) Field Reconnaissance

A total of three days, January 8, 9, and 10, 1981, were spent field checking sites for Site District 7-1. The study team consisted of the author and field assistant, B. Klinkenberg. The areas were travelled by automobile and by foot. Due to time constraints, a few sites were not field checked, but were checked solely by airphoto examination and existing background information. Sites were investigated for one-half to two hours and included an examination of as many different biological communities and site types as time permitted. Among the features noted during field investigation were condition, surrounding landscape features, immediate threats (e.g., ongoing logging), vegetation communities and land use. Information on topography, soil types and drainage patterns were generally noted in background information for the site. A preselected route was travelled during field work and was designed to traverse as many different habitats as possible.

In addition to this specific study-related field reconnaissance work, the author had visited many sites within the site district during field work for other projects between 1978 and 1981.

(iv) Site Evaluation

Following field reconnaissance, each site was reviewed, evaluated and compared with other similar sites within its vegetation-landform type. A few poor quality or unrepresentative sites were deleted. The remainder were denoted significant sites (see Glossary). Environmental Data Cards were prepared for each significant site, outlining its location, vegetation-landform feature(s), general physical and biological characteristics, watershed, size and disturbances. Boundaries were mapped on 1:50,000 topographic maps.

Following further evaluation within vegetation-landform groupings, candidate nature reserves (see Glossary) were selected from the list of significant sites. Representation, diversity, condition and ecological considerations were weighed equally in the evaluation process, while special features were of secondary importance. Life Science Inventory Check-sheets were written for each candidate nature reserve, documenting its significant features, comparing it to other similar significant sites and providing the rationale for its selection. Thus, the best quality sites in the site district were selected as candidate nature reserves.

Appendix A consists of check-sheets for parks and park reserves with nature reserve potential in Site District 7-1. Appendix B consists of the check-sheets for candidate nature reserves and the environmental data cards for significant sites. In this appendix, sites are listed in order of priority or significance within groupings of similar sites. Topographic maps (1:50,000 scale) showing the boundaries of significant sites and candidate nature reserves, and background data, are on file at the Parks and Recreation Section, Ministry of Natural Resources, Southwestern Region, London.

It should be noted that ownership was not generally considered during the evaluation process. Exceptions were Indian Reserve and Department of National Defense lands which are outlined on the 1:50,000 topographic maps. Significant sites on these federally-controlled lands were not recommended as candidate nature reserves, even if they contained the best quality or only examples of a major vegetation-landform feature in the site district.

The preparation of this report involved the compilation of existing data on the natural areas of Site District 7-1. This data included available information on Environmentally Sensitive Areas in the site district, airphoto review, topographic map review, and some contact with individuals knowledgeable about the site district. A limited amount of time was devoted to field checking of sites in order to assess their current condition and the degree of representation offered by each.

The emphasis of this study was directed towards vegetation-landform features. Therefore, areas of high quality wildlife and fisheries habitat, and special sites such as concentrations of rare or endangered flora and fauna, are generally missing unless otherwise a component of a representative vegetation-landform feature.

TABLE 2. TIME ALLOCATION FOR NATURAL FEATURES ANALYSIS AND CANDIDATE NATURE RESERVE SELECTION PROCEDURE

STEP	DAYS
1. Natural Feature Analysis (overview of natural landscape of Site District 7-1 and identification of life science features missing from provincial parks system)	5
2. Review of Background Information (review of topographic maps, physiographic maps, background information on documented sites of biological significance, air photos and selection of sites for field checking)	6
3. Field Reconnaissance (by automobile and foot)	3
4. Site Evaluation (final review of air photos, maps and field notes, preparation of Environmental Data Cards and mapping of significant sites, selection of candidate nature reserves after evaluation and comparison of significant sites)	12
	26

3. CANDIDATE NATURE RESERVES

The natural features analysis of Site District 7-1 identified the following vegetation-landform features as remaining in a relatively natural state: shoreline marshes and associated wetlands, shoreline sandspit and wetland complexes, creek valleys and adjoining uplands, prairies and alvars, and lowland/upland forest complexes. Table 1 relates these vegetation-landform features to the physiographic regions found in Site District 7-1.

Six provincial parks and park reserves have nature reserve potential and offer feature representation. These are Wheatley and Rondeau Provincial Parks, Ojibway Prairie and East Sister Island Provincial Nature Reserves, and Fish Point and Lighthouse Point Park Reserves. Check-sheet summaries of the features of these areas are provided in Appendix A.

Following the review of background information, airphoto interpretation and field work, thirty-six sites in the study area were chosen as significant sites. These are documented in Appendix B. Significant sites are considered representative of the site district and are of at least regional significance.

After further evaluation, nine of these significant sites, those offering the best quality representation of the major vegetation-landform features of the site district, were selected as candidate nature reserves. The nine candidate nature reserves selected are listed below. The location of these candidate nature reserves is shown in Figure 3. Table 1 presents the candidate nature reserves grouped according to physiographic region and vegetation-landform features.

SHORELINE MARSHES AND ASSOCIATED WETLANDS

Lake St. Clair Marshes (40J/8 835920)
Big Creek Marsh (40J/3 300560)

SHORELINE SANDSPIT AND WETLAND COMPLEXES

Point Pelee National Park (40G/15 740470)

CREEK VALLEYS AND ADJOINING UPLANDS

Cedar Creek (40J/2 500535)

PRAIRIES AND ALVARS

Stone Road Prairie and Alvar (40J/15 640240)
Prairie Remnants Adjacent to Ojibway Prairie Provincial Nature Reserve (40J/6 295810)

LOWLAND/UPLAND FOREST COMPLEXES

Clay Plain Sand Plain	Sinclair's Bush (40I/5 225855) Oxley Poison Sumac Swamp (40J/2 450520)
Bevelled Till Plain	Middle Island (40G/10 600157)

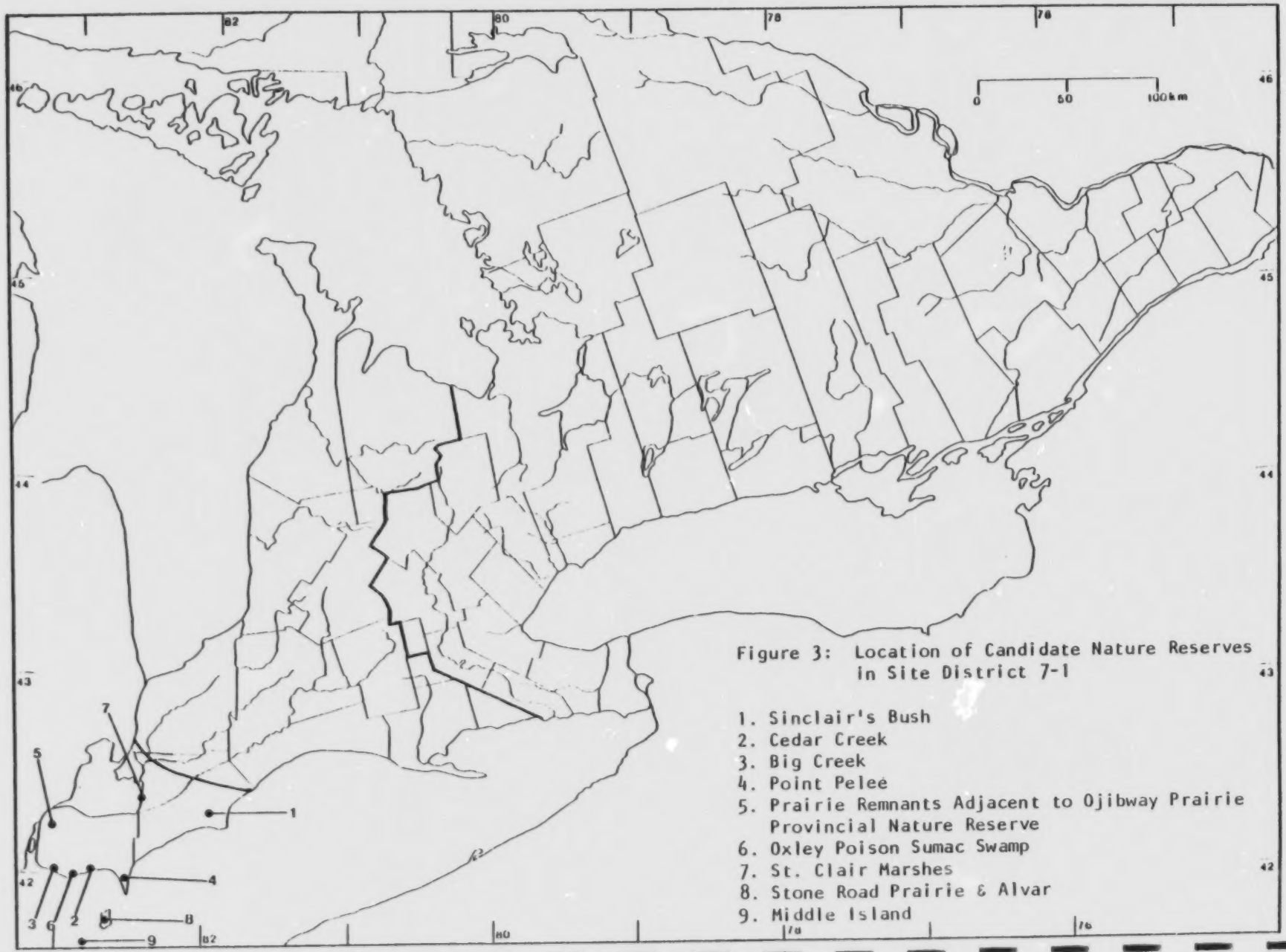


Figure 3: Location of Candidate Nature Reserves in Site District 7-1

1. Sinclair's Bush
2. Cedar Creek
3. Big Creek
4. Point Pelee
5. Prairie Remnants Adjacent to Ojibway Prairie Provincial Nature Reserve
6. Oxley Poison Sumac Swamp
7. St. Clair Marshes
8. Stone Road Prairie & Alvar
9. Middle Island

Site District 7-1 contains features which readily distinguish it from other site districts in Ontario. Strong prairie affinities are present in Essex, Kent and Lambton Counties, with ninety percent of Maycock's (1973) 124 prairie species of southern Ontario occurring in these three counties (Pratt, 1979). Lumsden (1966) mapped prairie and prairie-like soils in Ontario. A high percentage of these are found with Site District 7-1. Because of the strong prairie affinities of the flora of this site district, additional prairie representation to complement that provided by Ojibway Prairie Provincial Nature Reserve was sought. It was felt that this representation could be provided by numerous small prairie remnants such as are found in the Windsor area. The small prairie remnants which make up the composite candidate nature reserve Prairie Remnants Adjacent To Ojibway Prairie Provincial Nature Reserve provided additional representation of forb prairie, tall grass prairie, oak savannah/oak woods. In addition, although excluded from consideration as a Candidate Nature Reserve, because of its status as an Indian Reserve, the Walpole Island Marshes, Fens and Prairies deserve special note. This outstanding area supports concentrations of rare and endangered species and provides good examples of wet prairie and fen communities.

Limestone exposures (alvars) and areas of shallow soil over limestone are typical of the Erie Archipelago. Stone Road Prairie and Alvar, a site with both of the above features, was chosen to represent this feature and, in addition, this site offers prairie representation. Stone Road is unique in the province. In Site Region 7 alvars occur only on Pelee Island. The Stone Road Prairie and Alvar supports a distinctly southern alvar species complement not found inalvars elsewhere in the province. Many species found at this site occur in a very few or no other locations in Ontario and Canada.

Site District 7-1 also contains some of the most significant shoreline marshes and wetlands in southwestern Ontario. These wetlands are remnants of a habitat type that was once more abundant in Kent and Essex Counties. They are important migratory bird stopover points, and important habitat for many threatened or endangered species. Two sites were chosen as high quality representatives of shoreline marshes and associated wetlands. The Lake St. Clair Marshes offer fine representation of shallow marsh (reed marsh) and meadow marsh communities. Big Creek Marsh provides excellent representation of deep water cattail marsh with pockets of buttonbush swamp and lowland swamp forest.

Point Pelee National Park was identified as a candidate nature reserve to complement the feature representation provided by Rondeau Provincial Park and Fish Point Park Reserve. This site provides extensive representations of buttonbush swamp, willow thicket wetlands and cactus barrens.

Cedar Creek provides the best example of a creek valley system with adjoining uplands in the site district.

Because of the low lying nature of Site District 7-1, lowland/upland forest complexes (spring swamps and sandhill complexes) are the most common inland vegetation-landform feature. Three sites were chosen to provide representation of this vegetation-landform feature - Sinclair's Bush (clay plain), Oxley Poison Sumac Swamp (sand plain) and Middle Island (bevelled

till plain). Sinclair's Bush offers the best representation of upland (beech-maple) forest in the site district and some representation of lowland forest as well. Oxley Poison Sumac Swamp offers limited upland forest representation, good representation of a lowland forest type and representation of poison sumac-dogwood swamp - a vegetation type not reported elsewhere in the site district. Middle Island offers the best representation of lowland forest on shallow soil over limestone, and supports an unusual and good quality mature hackberry forest.

Although two major river valley corridors occur in the site district, no suitable good quality representatives of this vegetation-landform type were noted. Further research in this area is required.

4. CONCLUSIONS

Eight provincial parks and park reserves occur in Site District 7-1. Six of these have nature reserve potential, with present or proposed nature reserve zones: Wheatley and Rondeau Provincial Parks, Ojibway Prairie and East Sister Island Provincial Nature Reserves and Fish Point and Lighthouse Point Park Reserves.

Following a review of the remaining natural features of the site district, and of the predominant vegetation-landform types, nine candidate nature reserves were chosen for the site district. Two sites were chosen to represent shoreline marshes and associated wetlands - Lake St. Clair Marshes and Big Creek Marsh. One site was chosen to represent shoreline sandspit and wetland complexes - Point Pelee National Park; and one site was selected to represent creek valleys and adjoining uplands - Cedar Creek. Two sites were chosen to represent prairies and alvars in the site district - Stone Road Alvar and Prairie Remnants Adjacent to Ojibway Prairie Provincial Nature Reserve. Three sites were chosen to represent lowland/upland forest complexes - Sinclair's Bush, Oxley Poison Sumac Swamp and Middle Island.

These candidate nature reserves can be protected in various ways. Parts of some candidate nature reserves are already owned by the federal government or by Conservation Authorities. Others may be secured through acquisition by organizations such as conservation authorities, the Nature Conservancy of Canada and the Ontario Heritage Foundation. Land-use zoning through zoning by-laws or official plans may help to protect other sites. Conservation easements and landowner agreements may be an additional viable means of protection.

An additional 27 sites were selected as significant sites in the site district. These are valuable ecological areas which should also receive protection. This could be achieved through official plans and zoning by-law designations and through the land-use planning process. Many of these sites are important for their hydrological, botanical and wildlife values. Because of the reconnaissance nature of this study further work is required on many sites in order to adequately describe sigificant features.

The outstanding natural features of the Walpole Island Marshes, Fens and Prairies deserve special consideration and a concerted effort to protect this site should be made.

GLOSSARY

Areas of Natural and Scientific Interest (ANSI): ANSIs are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage, scientific study or education. ANSIs may vary in level of significance. The most significant of these, Candidate Nature Reserves in the site district reports, may contribute to the achievement of the Ministry's protection objective. Those which do not contribute to the provincial protection objective are referred to as Significant Sites in the site district report.

Candidate Nature Reserve: Candidate nature reserves are sites selected on a systematic basis to represent the natural features and landscapes of Ontario and to complement other protected zones in the provincial parks system. Candidate nature reserves contain the best examples of the landform and vegetation features of each site district; features that may be of widespread or restricted occurrence within the site district. They are selected after comparison and evaluation of significant sites sharing similar features. Each candidate nature reserve possesses sufficient ecological integrity, buffering capacity and size that protection appears to be a viable management strategy.

Physiographic Region: Chapman and Putnam (1973) described and mapped fifty-two minor physiographic regions within southern Ontario. These physiographic regions are areas with recognizable local landform patterns. Map 1 outlines the physiographic regions that fall wholly or partially within the site district.

Significant Site: A site of at least regional significance and representative of the landform and vegetation features of the site district. Chosen after reviewing the background information available on sites of biological importance, air photo analysis and field checking of selected areas. After final evaluation and comparison of similar significant sites, some were chosen as candidate nature reserves. However, all significant sites are recommended for protection through the land use planning process.

Site District: A subdivision of a site region, with a characteristic pattern of physiographic features (Hills, 1959). Site districts are small scale map units that segregate substantial areas from each other on the basis of broad landform patterns. Refer to Figure 1.

Site Region: An area of land within which the response of vegetation to the features of the landform follows a consistent pattern (Hills, 1959). Refer to Figure 1.

APPENDIX A: PARKS AND PARK RESERVES WITH NATURE RESERVE POTENTIAL IN SITE DISTRICT 7-1

Of the eight provincial parks and park reserves in Site District 7-1, six are either provincial nature reserves, contain nature reserve zones, or have nature reserve potential, and thus offer some representation of the natural features of this site district (Lindsay and Hanna, 1980). These sites and their feature representations are presented in the following check-sheets.

Wheatley Provincial Park	40J/1	810610
Rondeau Provincial Park	40I/5	295810
Ojibway Prairie Provincial Nature Reserve	40J/6	290800
East Sister Island Provincial Nature Reserve	40G/15	457304
Fish Point Park Reserve	40G/10	610210
Lighthouse Point Park Reserve	40G/15	635310

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Wheatley Provincial Park	Romney	40J/1	810610

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Kent

LAT.: 42 ° 05 ' N | LONG.: 82 ° 26 ' W | ALT. MIN. MAX.: ca.573-575 ft.east of

LOCALITY: on Lake Erie south-east of the town of Wheatley

TOWNSHIP: Romney | LOTS: | CONCESSIONS:

AREA: 596 acres 240 ha

OWNERSHIP: MNR-Parks

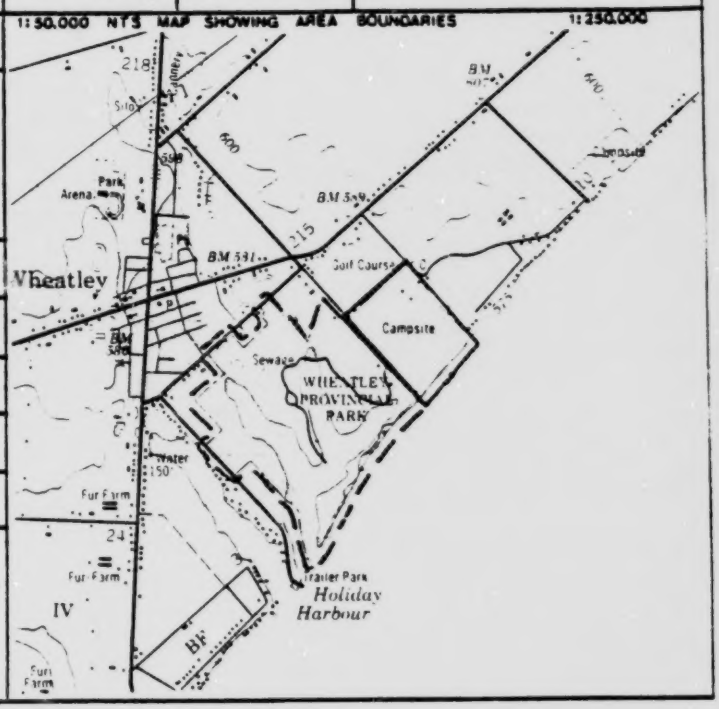
ADMINISTRATION: MNR-Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Chatham	Lower Thames

AERIAL PHOTOGRAPHS — BASE MAP: 421822

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	225	4206	87, 88
1978	228	4207	249-251

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

The proposed Nature Reserve Zone of Wheatley Provincial Park encompasses a 40 ha woodlot on the east side of the park known as the Ern Wigle Tract. The northwest section of this woodlot is located on a slightly undulating sandland upland with low dry ridges separated by wet depressions. The remainder of the woodlot is located on a flat clayey silt till plain which slopes gently towards Lake Erie. A southeast-facing slope separates the sand upland from the area of clayey, silt till plain. A small stream valley and associated floodplain dissects the till plain, while an eroding shorebluff separates the tract from the Lake Erie beach on the south edge.

Vegetation types present here include an intermediate-aged spring swamp forest (*Acer rubrum- Quercus borealis - Sassafras albidum - Betula lutea - Nyssa sylvatica*); lowland swamp forest (*Quercus bicolor - Acer rubrum - Carya ovata - Quercus macrocarpa - Carya cordiformis*); and upland deciduous forest (*Carya ovata - Fraxinus americana - Quercus alba - Tilia americana - Acer saccharum*).

Disturbances to the site include the presence of a scout camp with associated trampling, compaction and footpaths, an old campground road system and the presence of the main park entrance road in the northwest corner of the tract.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Argus and White, 1977; Brunton, 1979; Lindsay and Klinkenberg, 1979; Lindsay and Hanna, 1980; Klinkenberg and Edwards, 1979; Maycock (in prep.), Maycock, 1963.

EVALUATION AND PRIORITIES

A provincially-significant deciduous forest complex on sand upland and clay plain. It supports numerous rare species as well as significant and rare plant associations.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay & Klinkenberg, 1979)

Special features of the site include numerous rare plant species for example Nyssa sylvatica, Quercus bicolor, Chenopodium foggii, and rare or unusual plant associations.

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Rondeau Provincial Park	Ridgetown	40I/5	295810

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Kent	42 ° 05 'N	82 ° 26'W	ca.573-575 ft.

LOCALITY: north shore of Lake Erie ca. 30 km SE of Chatham

TOWNSHIP / LOTS / CONCESSIONS: Harwich Township

AREA: 11,900 acres 4800 ha

OWNERSHIP: MNR-Parks

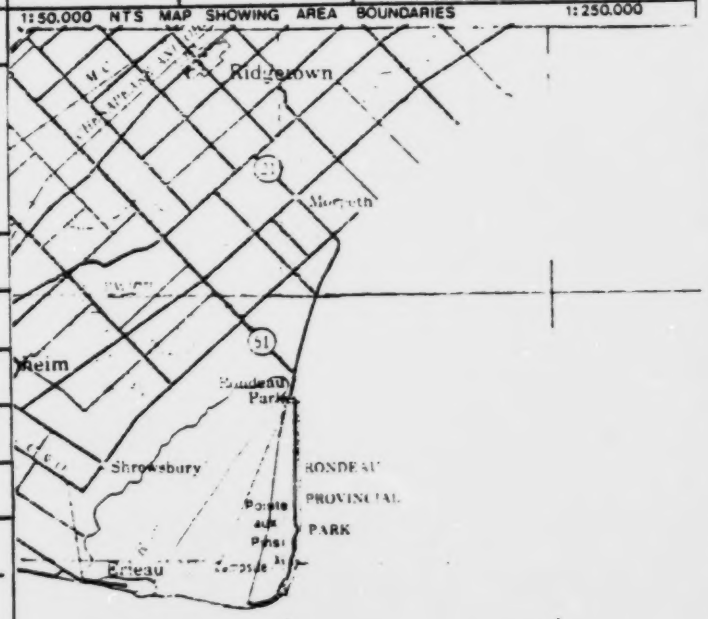
ADMINISTRATION: MNR-Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	Lower Thames

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	230	4218	189,190
1978	257	4219	28-34
1978	260	4220	153-157

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 4800 ha site is one of three major sandspits on the north shore of Lake Erie, and is composed of linear sandy ridge and swale complexes. The peninsula supports the largest remaining tract of deciduous forest (1100 ha) in the Deciduous Forest Region of Canada.

Vegetation types present include deciduous and mixed deciduous-coniferous stands (with oak, pine, maple, beech, basswood and tulip-tree), prairie openings, oak savannahs, sand prairies, deciduous swamps (Acer saccharinum-Fraxinus pennsylvanica-Betula lutea) marsh, wet meadow and shrub thickets. Special features of the site include the strong representation of prairie and Carolinian species in the flora of the park, numerous rare plant species (78) (eg., Triphora trianthophora, Hypoxis hirsuta), rare and endangered faunal species (eg., Bald Eagle, Prothonotary Warbler, Eastern Spiny Softshell Turtle, Fowler's Toad, Spotted Turtle).

Disturbances to this site include logging, clearing, cottage development, grazing and browsing by deer, storm damage and fire.

A large part of Rondeau's forest lies within the Nature Reserve zone proposed in the Preliminary Master Plan (Coates, 1977). This proposed zone also includes the significant communities developed on the southeast shoreline, an area with the largest

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Argus and White, 1977; Campbell, 1971; Coates, 1977 a and b; Lindsay, 1980, 1982; Pratt, 1975 a and b.; Woodliffe, 1977, 1978, 1979, 1980.

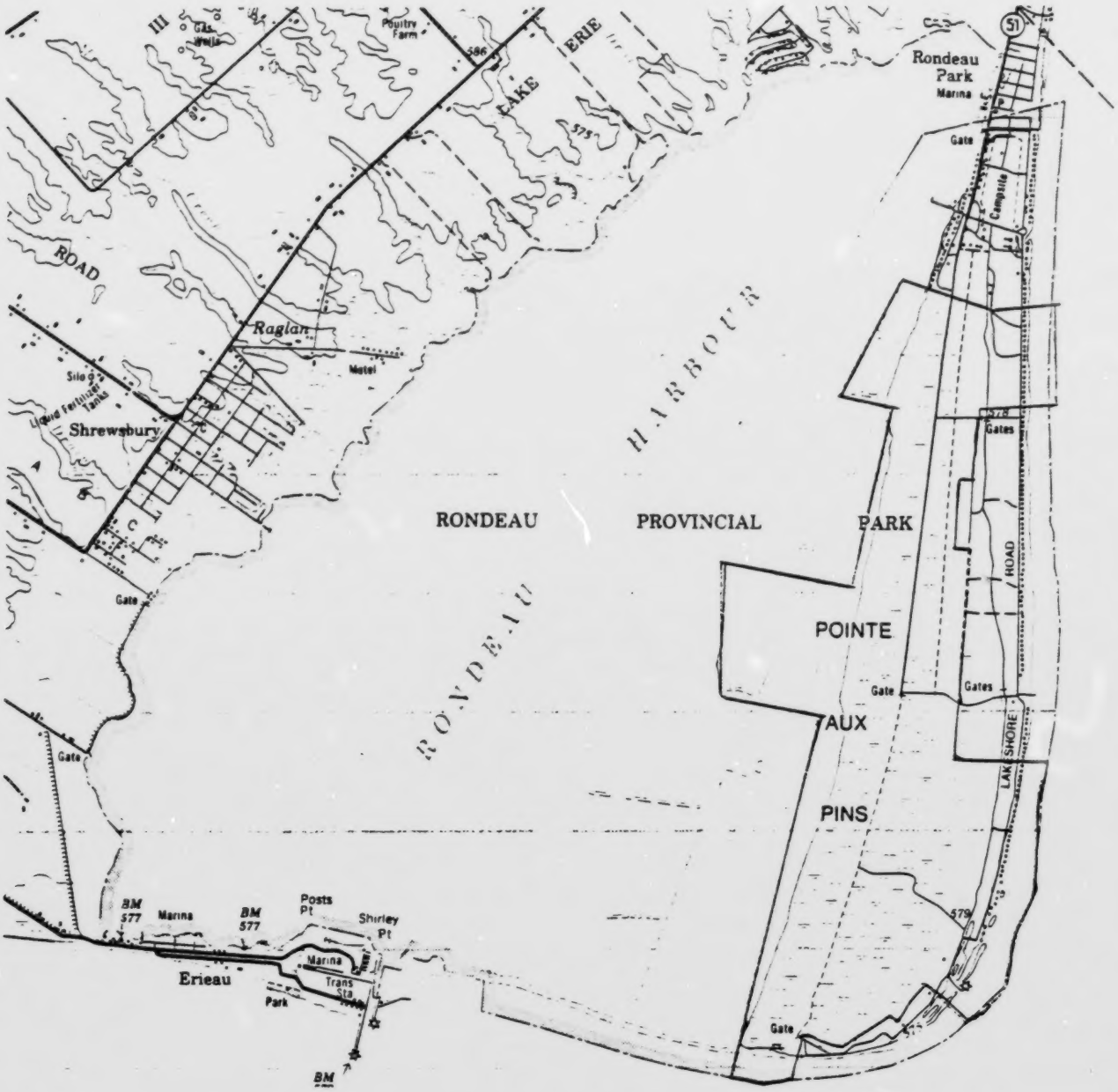
EVALUATION AND PRIORITIES

A nationally significant tract of deciduous forest with a major wetland component supporting rare and endangered species.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay, 1980)

sand prairie and best black oak savannah remaining in southern Ontario (Pratt, 1975). Rondeau offers excellent representation of a major Lake Erie sand spit and a Great Lakes shoreline marsh. Part of Rondeau's marsh, about one-third of its 750 ha, is protected by the Nature Reserve zone proposed in the Preliminary Master Plan. An additional area of marsh was suggested for Nature Reserve zoning by Lindsay (1980).

For more complete information on Rondeau Provincial Park, please refer to Lindsay, 1980.



AERIAL PHOTOGRAPHS cont'd

1978	258	4221	60-62
1978	258	4222	131-133
1978	258	4223	191

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Ojibway Prairie Provincial Nature Reserve	Windsor	40J/6	290800

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LOCALITY: southwest of Windsor within city limits

TOWNSHIP / LOTS / CONCESSIONS: Sandwich West Township; City of Windsor

LAT.	LONG.	ALT. MIN. MAX.
42° 15'N	83° 04'W	575-600 ft.

AREA: 223 acres 90ha

OWNERSHIP: MNR

ADMINISTRATION: MNR-Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1

MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Chatham	Essex

AERIAL PHOTOGRAPHS

YEAR	ROLL	BASE MAP: FLIGHT LINE	NUMBERS
1978	230	4218	90
1978	230	4219	4

PHYSICAL AND BIOLOGICAL FEATURES

This 90 ha site, located within the City of Windsor, supports one of the largest remnants of tall-grass prairie in North America. In addition to providing representation of a tall-grass prairie complex (forb prairie, tall-grass prairie - Spartina andropogon, Spartina calamagrostis), this site offers representation of oak savannah (Quercus palustris, Quercus velutina) and oak forest (Quercus velutina; Carya glabra - Quercus velutina).

Past disturbances to the site include clearing, cultivation, ditching and draining, use of recreational vehicles, and sand and topsoil removal.

Special features of Ojibway Prairie include the occurrence of approximately one-half of the species of prairie plants known to occur in Ontario, rare flora (eg., Paspalum ciliatifolium, Hypoxis hirsuta, Liparis lilifolia, Silphium terebinthinaceum) and rare fauna (Eastern Massassauga Rattlesnake, Butler's Garter Snake, Eastern Fox Snake).

For a more complete summary of the features of this site please refer to Pratt, 1979, Lindsay, 1979, and Parks and Recreational Areas Branch, 1981.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Bevan, 1977; Guilton, 1978; Hoffman et al, 1975; Klinkenberg, 1982; Lindsay, 1979, 1982; Maycock and Hills, 1970; Maycock and Hills, 1975; Parks and Recreational Areas Branch, 1981; Pratt, 1979; Woodliffe and Sulstan, 1983

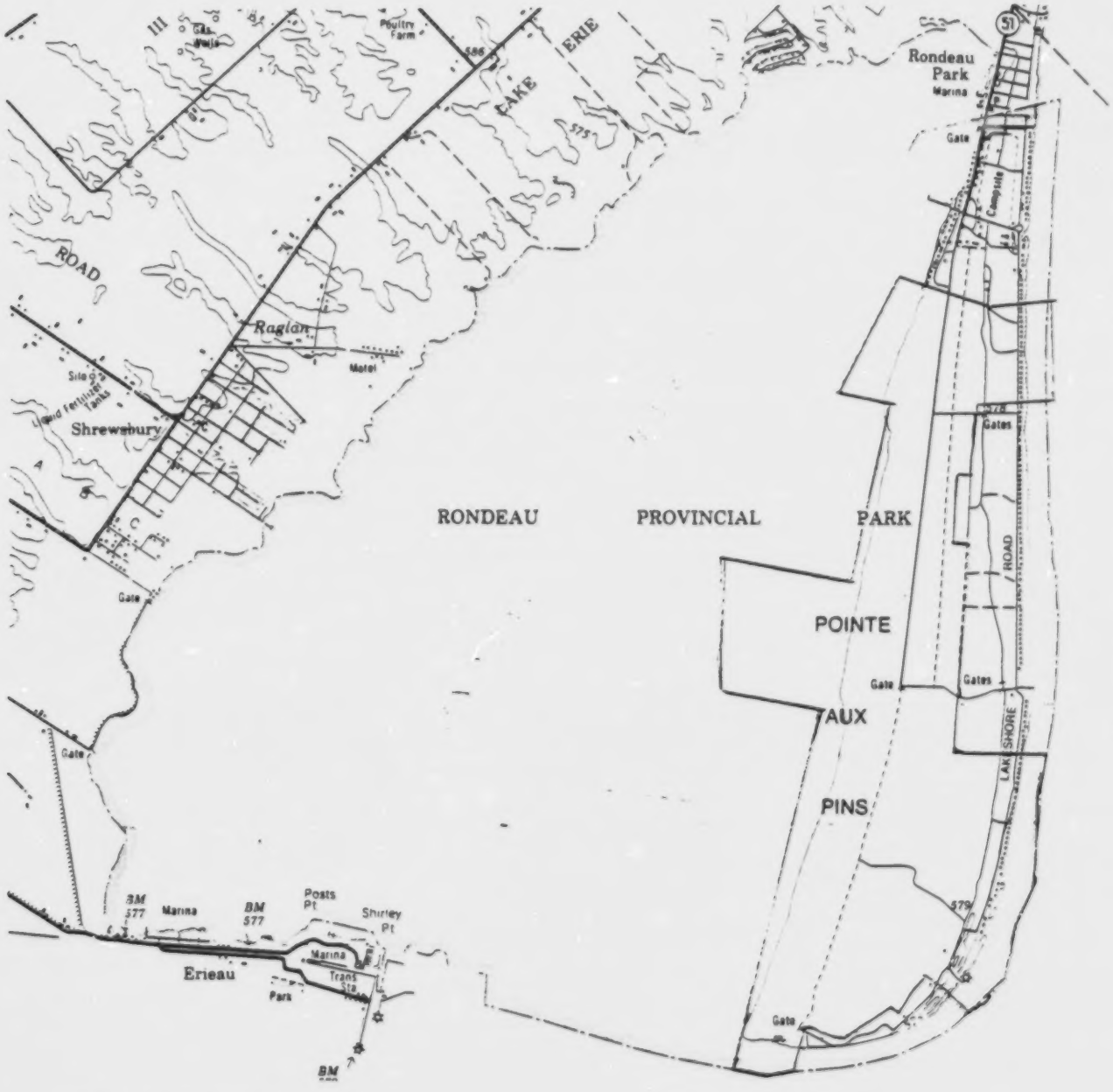
EVALUATION AND PRIORITIES

This nationally-significant provincial nature reserve supports numerous rare species of flora and fauna, and rare plant communities.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay, 1979)

sand prairie and best black oak savannah remaining in southern Ontario (Pratt, 1975). Rondeau offers excellent representation of a major Lake Erie sand spit and a Great Lakes shoreline marsh. Part of Rondeau's marsh, about one-third of its 750 ha, is protected by the Nature Reserve zone proposed in the Preliminary Master Plan. An additional area of marsh was suggested for Nature Reserve zoning by Lindsay (1980).

For more complete information on Rondeau Provincial Park, please refer to Lindsay, 1980.



AERIAL PHOTOGRAPHS cont'd

1978	258	4221	60-62
1978	258	4222	131-133
1978	258	4223	191

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
East Sister Island Provincial Nature Reserve	Pelee	40G/15	457304

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN. MAX.
Essex	41° 49' N	82° 50' W	ca.573-600 ft.

LOCALITY: ca. 15 km west of Pelee Island in western Lake Erie

TOWNSHIP / LOTS / CONCESSIONS:
Pelee Township
Note: The island is 36 acres (15 ha); the nature reserve includes a waterlot surrounding the island.

AREA: 131 acres 53 ha

OWNERSHIP: MNR - Parks

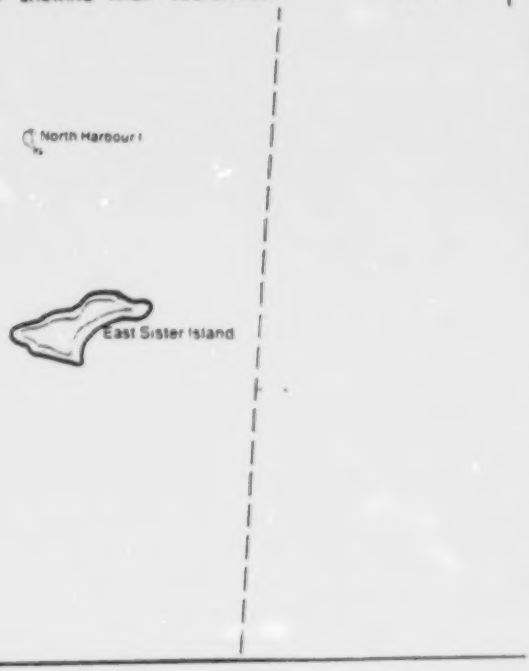
ADMINISTRATION: MNR - Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW - Chatham	Essex Region

AERIAL PHOTOGRAPHS — BASE MAP: 417824

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4156	158, 159
1978	253	4157	154, 155

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 53 ha site, located in western Lake Erie, is a low, flat bedrock island with a series of storm beaches along its shore. Physical features include exposed Devonian dolomite on the north and east shores, and raised cobblestone beach deposits in the southwest

Vegetation types present include a lowland swamp forest complex in the interior (Acer saccharinum - Ulmus americana - Fraxinus pennsylvanica; Fraxinus pennsylvanica - Ulmus americana - Celtis occidentalis - Populus deltoides - Gymnocladus dioica - Tilia americana); upland intermediate -aged hackberry forest in the northeast (Celtis occidentalis - Acer nigrum - Tilia americana - Quercus muhlenbergii - Carya ovata - Fraxinus americana - Gymnocladus dioica); shrub thickets (Prunus virginiana - Cornus drummondii - Sambucus canadensis - Euonymus atropurpureus); and shallow marsh.

Disturbances to the site include natural disturbances (flooding, storms) and human disturbances (past logging, cultivation).

Significant features of the site include a large mixed heronry (Great Blue Heron, Great Egret), rare flora (e.g., Gymnocladus dioica, Camassia scilloides, Phacelia purshii, Aster shortii), and rare and endangered faunal species (e.g., Lake Erie Water

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Argus and White, 1977; Blokpoel & McKeating, 1978; Campbell, 1976; Campbell & Reznicek, 1977; Lindsay, 1979, 1982; Kershaw, Morton & Venn, 1976; Mosquin & Suchal (eds.), 1977; Oldham, 1982: Tracey et al, 1971; Woodliffe 1982; Oldham, 1982 and 1984.

EVALUATION AND PRIORITIES: East Sister Island offers representation of some of the features typical of the limestone islands of western Lake Erie. Many special features including 17 provincially rare plants & provincially & nationally significant fauna.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay, 1979) 31

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

Snake, Eastern Fox Snake).

For a more complete summary of this site, please refer to Lindsay, 1979 and Ontario Ministry of Natural Resources, 1981.

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Fish Point	Middle Island	40G/10	610210

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LAT. 41 ° 43'N | LONG. 82 ° 40'W | ALT. MIN. – MAX. ca.573 ft. – 575 ft.

LOCALITY: southernmost point on Pelee Island

TOWNSHIP / LOTS / CONCESSIONS: Pelee Township

AREA: 273.5 acres 110.7 ha

OWNERSHIP: MNR - Parks

ADMINISTRATION: MNR - Parks

FOREST REGION AND DISTRICT: D-1

SITE REGION AND DISTRICT: 7-1

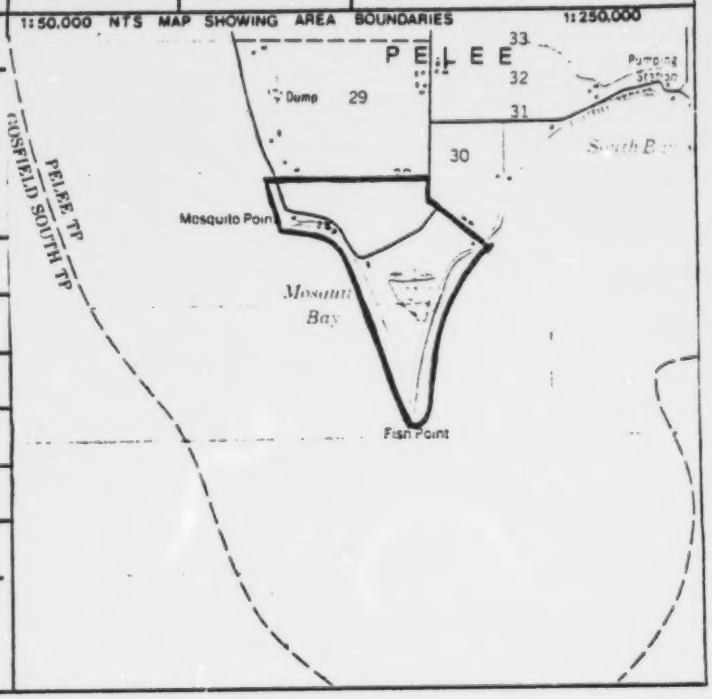
MNR REGION AND DISTRICT: SW - Chatham

CONSERVATION AUTHORITY: Essex

AERIAL PHOTOGRAPHS — BASE MAP: 417823

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4150	140, 141
1978	253	4151	135, 136

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 1 km long sandspit and wetland complex is located on the southernmost point on Pelee Island in western Lake Erie. Broad, low sand dunes line the west shoreline of the spit which, in turn, encloses a small lagoon. Mid-Devonian limestone outcrops on the east shoreline of the site, forming a shingle beach.

Vegetation types represented on this site include deciduous forest (Acer saccharum - Acer nigrum - Fraxinus americana - Celtis occidentalis - Quercus muhlenbergii - Tilia americana); open dune savannah (Fraxinus quadrangulata - Juniperus virginiana - Populus deltoides - Quercus borealis and Rhus aromatica - Juniperus communis; Ptelea trifoliata - Vitis riparia); sand beach associations; aquatic communities; lowland swamp forest (Acer saccharinum - Fraxinus pennsylvanica - Quercus macrocarpa - Quercus borealis - Quercus bicolor); old field and shrub thickets.

Disturbances to this site include adjacent land-use practices, removal of significant species by the general public (i.e., cacti removal), grazing, logging.

Special features of this site include 56 provincially rare plant species (for example, Camassia scilloides, Opuntia humifusa, Celtis tenuifolia), and six rare, threatened or

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Argus & White, 1977 & 1982; Blokpoel & McKeating, 1978; Campbell, 1971; Kershaw, Morton & Venn, 1976; Klinkenberg, 1981-82; Lindsay, 1979, 1982; Oldham, 1982: Reznicek, 1981 & 1982.

EVALUATION AND PRIORITIES

Representation of excellent coastal sandspit and wetland complex, shoreline sand dunes plus numerous special features including rare and endangered flora and fauna.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay, 1979) 33

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario. M7A 1W3

endangered faunal species (for example, Lake Erie Water Snake, Blanchard's Cricket Frog, Eastern Spiny Softshell Turtle).

For a more complete summary of the features of this site refer to Lindsay, 1979.

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Lighthouse Point	Pelee	40G/15	635310

COUNTY, DISTRICT or REGIONAL MUNICIPALITY	LAT.	LONG.	ALT. MIN.	MAX.
Essex	41° 49'N	82° 38'W	ca.573 ft.	575 ft.

LOCALITY
Pelee Island, western Lake Erie

TOWNSHIP	LOTS	CONCESSIONS
Pelee Township An additional 9.6 ha (23.8 acres) adjacent to the park reserve is leased from the Essex Region Conservation Authority.		

AREA
254.88 acres 103 ha

OWNERSHIP
MNR-Parks

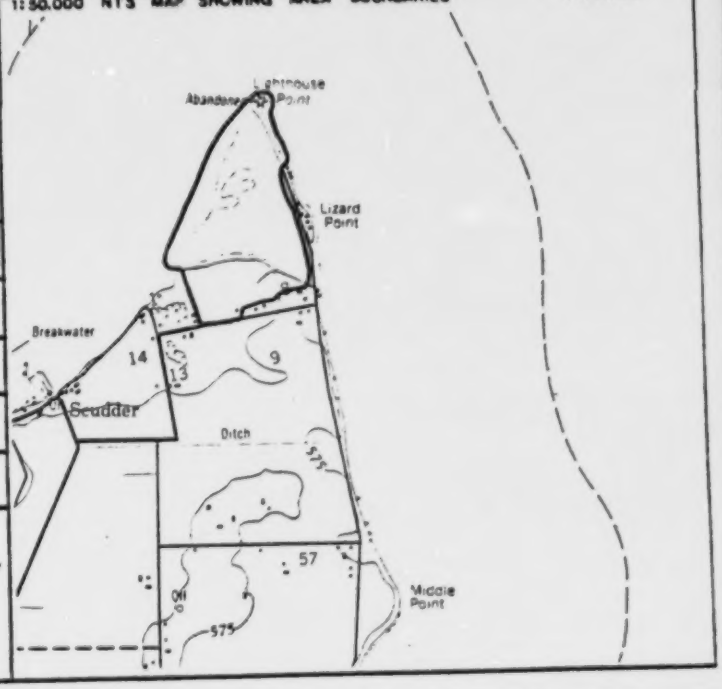
ADMINISTRATION
MNR-Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	Essex

AERIAL PHOTOGRAPHS — BASE MAP: 417823

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4158	82-84
1978	253	4157	89-91

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 103 ha shoreline sandspit and wetland complex is located in the northeast corner of Pelee Island, in western Lake Erie. It consists of several low sand dunes which parallel the shoreline, a low sand ridge on the east shoreline, and a sand bar on the west shoreline. This bar was breached by lake storms in 1972-73, flooding the inland areas. Small sandspits have built up at both ends of this breach.

Vegetation types represented by this site include sedge and forb marsh, sand dune associations (Populus deltoides - Fraxinus pensylvanica - Salix amygdaloides - Celtis tenuifolia with vines of Vitis riparia - Parthenocissus quinquefolia - Rhus radicans); beach associations (Triplassis purpurea - Cyperus engelmannii - Cycloloma atriplicifolia); hackberry-blue ash savannah (Celtis occidentalis - Fraxinus quadrangulata - Quercus muhlenbergii - Crataegus mollis - Tilia americana - Ostrya virginiana).

Past disturbances to this site include flooding, shoreline alterations, logging, grazing, burning and draining.

Special features of this site are numerous and include 38 provincially rare plant species (eg., Allium cernuum, Euphorbia obtusata, Rosa setigera Fraxinus

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Argus & White, 1977 & 1982; Campbell, 1971, 1975 a, b, 1976, 1977 d, 1978; Campbell and Reznicek, 1977; Klinkenberg, 1981-82; B. Klinkenberg, 1983; Lindsay, 1980, 1982; Oldham,

EVALUATION AND PRIORITIES Offers excellent representation of sandspit - sand dune - wetland complex and hackberry-blue ash savannah. Numerous special features, including a recently established colony of double-crested cormorants.

DATE COMPILED	COMPILER
March 9, 1983	R. Klinkenberg (after Lindsay, 1980) 35

quadrangulata), 5 species of rare or endangered herptiles (eg., Blue Racer, Lake Erie Water Snake, Blanchard's Cricket Frog), and a recently established colony of Double-Crested Cormorants.

For a more complete summary of the features of this site refer to Lindsay, 1979.

APPENDIX B: NATURE RESERVE CHECK-SHEETS AND ENVIRONMENTAL DATA CARDS FOR SIGNIFICANT SITES IN SITE DISTIRCT 7-1

The following thirty-six significant sites were examined during this study, with the nine best quality sites selected as candidate nature reserves. These sites complete the gaps in representation offered by the six parks and park reserves in the site district which have nature reserve potential.

	Page Number
SHORELINE MARSHES AND ASSOCIATED WETLANDS	
Lake St. Clair Marshes (40J/8 835920) - CNR[1]	39
Big Creek (40J/3 300560) - CNR	41
Walpole Island Marshes, Fens and Prairies (40J/10 720110)	44
Canard River Mouth Marsh (40J/3 260170)	44
SHORELINE SANDSPIT AND WETLAND COMPLEXES	
Point Pelee National Park (40G/15 740470) - CNR	45
Hillman Marsh (40J/1 765540)	47
Rondeau Bay Marshes (40I/5 250840)	47
CREEK VALLEYS AND ADJOINING UPLANDS	
Cedar Creek (40J/2 500535) - CNR	49
Morpeth Ravine (40K/5 313920)	51
Duthill Woodlot #1 (40J/9 850295)	51
Duthill Woodlot #3 (40J/9 852272)	52
PRAIRIES AND ALVARS	
Stone Road Prairie and Alvar (40G/15 640240) - CNR	53
Prairie Remnants Adjacent To Ojibway Prairie Provincial Nature Reserve (40J/6 295810) - CNR	55
East-West Road Savannah (40G/15 605239)	57
Chenal Ecarte Prairie (40J/9 852087)	58
LOWLAND/UPLAND FORESTS COMPLEXES	
CLAY PLAIN	
Sinclair's Bush (40I/5 225855) - CNR	59
Barretville Clay Plain Forest (40J/2 425625)	61
Marshfield Clay Plain Forest (40J/2 440590)	61
Jeannette's Creek Woods (40J/8 912862)	62
SAND PLAIN	
Oxley Poison Sumac Swamp (40J/2 450420)	63
Colchester Sand Plain Woods (40J/2 412520)	65
Leamington Sand Hills Complex (40J/2 735568)	65
Arner Spleenwort Woods (40J/2 462535)	66
Van Horne Sugar Maple Stand (40J/3 972122)	66
Louisville Sand Plain Woods (40J/8 035102)	66
Pinehurst Sandy Loam Hills (40J/8 151980)	67
Selton Rolling Sandland (40I/12 181075)	67
Kopegaron Woods (40J/1 765590)	67

[1] CNR indicates Candidate Nature Reserve, a term which was changed to Area of Natural and Scientific Interest in 1983.

Page Number

BEVELLED TILL PLAIN

Middle Island (40G/10 600157) - CNR 69
Canard River Scout Camp (40J/3 317710) 71
Ruthven Rocky Woods (40J/2 595585) 71
Cameron Scott's Woods (40J/2 655635) 72
Emeryville Clay Plain Woods (40J/7 543801) 72
Middle Point Woods (Brown's Woods) (40G/15 648285) 72
Canard River Kentucky Coffee-Tree Woods (40J/2 355660) 73
Devonwood (40J/7 366807) 73

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Lake St. Clair Marshes	Chatham	40J/8	835920

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LOCALITY: ca. 20 km east of Chatham

TOWNSHIP / LOTS / CONCESSIONS: Dover Township

AREA: 1613 acres 650 ha

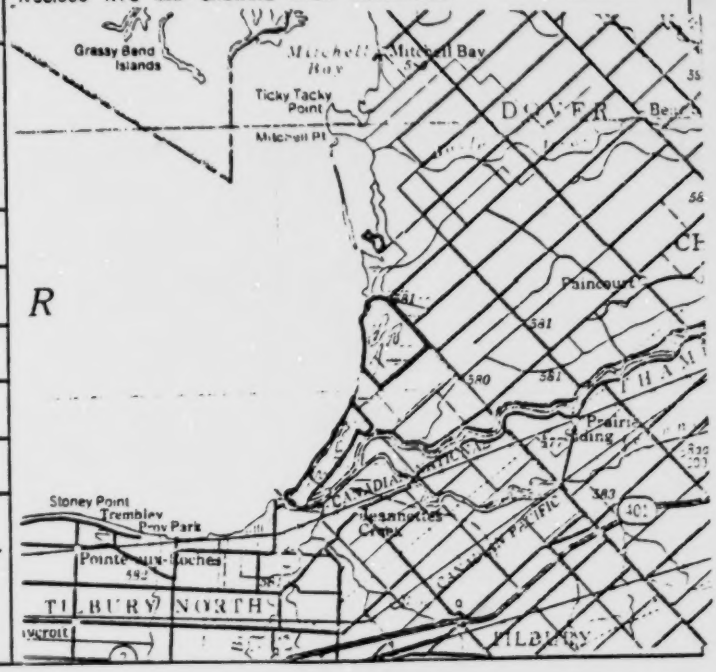
OWNERSHIP: Public and Private

ADMINISTRATION: CWS (in part)

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	LTVCA

LAT.	LONG.	ALT. MIN.	ALT. MAX.
41° 43'N	82 ° 40'W	ca.573 ft.	575 ft.

1:50.000 NTS MAP SHOWING AREA BOUNDARIES 1:250.000



AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	258	4221	16, 17
1978	258	4222	78, 79
1978	258	4223	136, 137
1978	256	4224	3 - 6

PHYSICAL AND BIOLOGICAL FEATURES

This wetland site offers excellent representation of shallow shoreline marsh complexes on the Bothwell Sand Plain. Vegetation types represented here include cattail marsh, reed marsh, meadow marsh, submerged aquatic communities, wooded swamp, and barrier beach communities. These are interspersed with a few pockets of open water. Disturbances to the site include dyking, draining, hunting and fishing. Active marsh management (water level control) is ongoing in some areas of the site. Special features of the site include staging and breeding grounds for waterfowl; fish spawning sites; whistling swan concentrations; rare flora (e.g. Nelumbo lutea, Hypoxis hirsuta, Veronicastrum virginicum) and rare fauna (Eastern Fox Snake, Spotted Turtle, Eastern Spiny Softshell Turtle). The St. Clair Marshes offer the best quality representation in the site district of shallow marsh vegetation complexes.

AERIAL PHOTOGRAPHS Continued:

1978	256	4225	63, 64	1978	255	4231	162 - 165
1978	277	4226	110, 111	1978	229	4232	19, 20
1978	256	4227	162, 163	1978	226	4233	207
1978	255	4228	3, 4	1978	226	4234	123 - 126
1978	284	4229	160, 161	1978	284	4235	75 - 78
1978	255	4230	93	1978	226	4236	37 - 39
1978	250	4230	94				

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

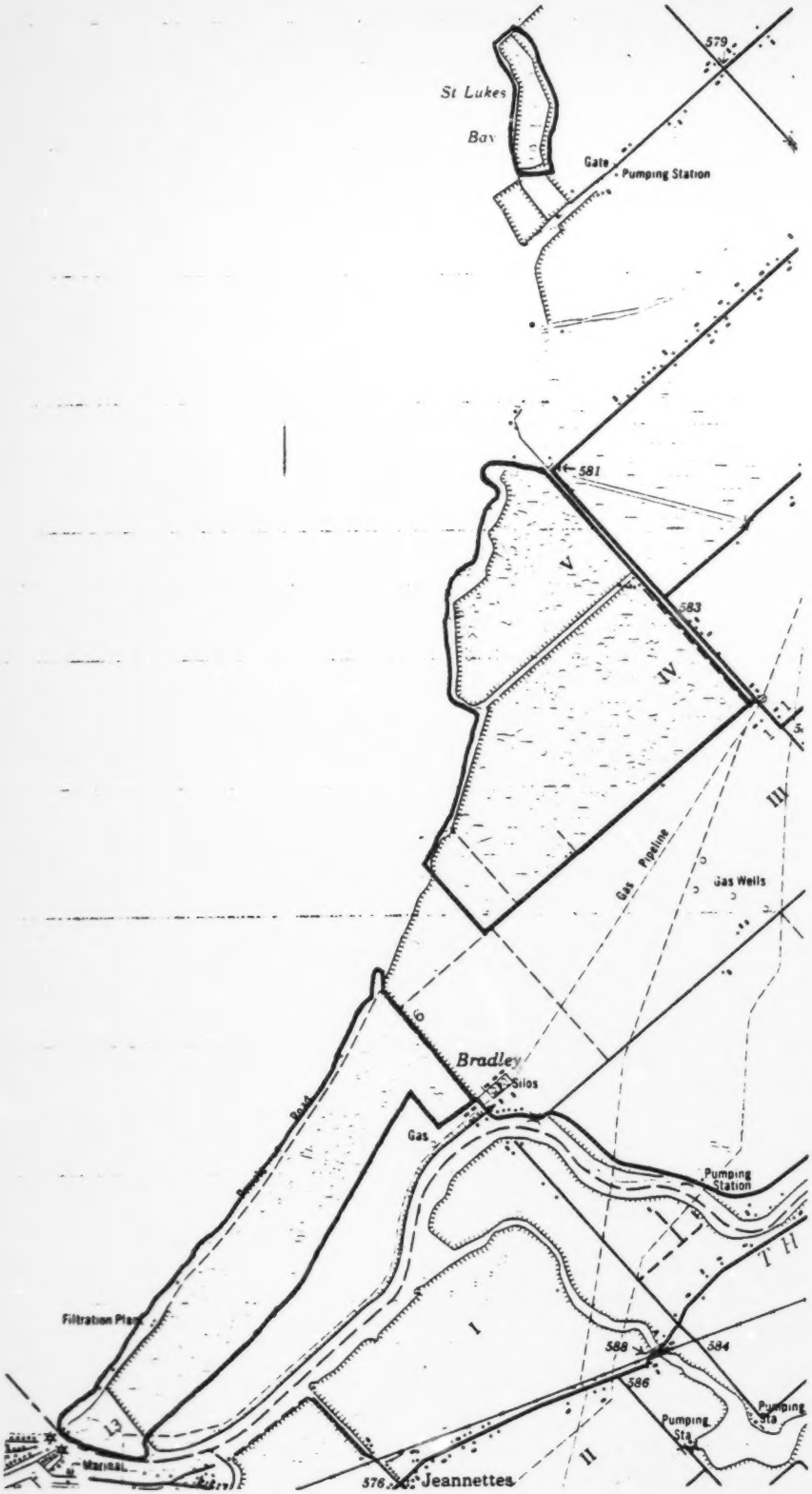
Gow, 1981; Gow, 1980; Klinkenberg, 1981; Klinkenberg and Klinkenberg, 1978-1981; OMNR, 1978.

EVALUATION AND PRIORITIES

An excellent shoreline marsh complex on the Bothwell Sand Plain, offering the best representation of a cattail marsh-reed marsh-meadow complex with barrier beach.

DATE COMPILED	COMPILER
Feb., 1981 Revised Fall, 1982	R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario. M7A 1W3


St Lukes
Bay
579
Gate
Pumping Station
581
583
V
IV
III
Gas Pipeline
Gas Wells
Bradley
Silos
Gas
Pumping Station
TH
Filtration Plant
I
588
584
586
Pumping Sta
Pumping Sta
II
576
Jeannettes

SITE DISTRICT 7-1: SHORELINE MARSHES AND ASSOCIATED WETLANDS

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Big Creek Marsh	Amherstburg	40J/3	300560

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LOCALITY: ca. 3 miles southeast of Amherstburg

TOWNSHIP / LOTS / CONCESSIONS: Malden Township

AREA: ca 1480 acres ca 650 ha

OWNERSHIP: Public and Private

ADMINISTRATION: ERCA (in part)

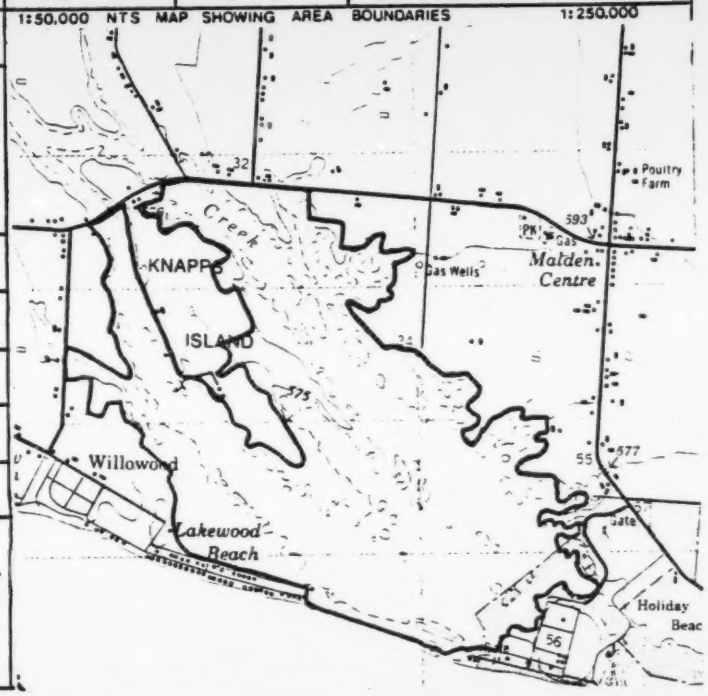
FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	225	4203	209, 210, 211
1978	225	4204	158, 159, 160

LAT.	LONG.	ALT. MIN. MAX.
42° 3'N	83° 04'W	ca.573 ft.

1:50.000 NTS MAP SHOWING AREA BOUNDARIES 1:250.000



PHYSICAL AND BIOLOGICAL FEATURES

This 600 ha shoreline marsh and creek system provides excellent representation of cattail marsh, swamp forest, thicket swamp, upland forest communities, with limited representation of beach vegetation. It differs from the Lake St. Clair Marshes in providing greater expanses of shallow open water interspersed with cattail stands and more extensive representation of swamp forest.

Disturbances to the site include hunting, logging, and filling, with recent clearing on Knapps Island. A dam is present between the marsh and Lake Erie. This site is surrounded by agricultural fields, with a major cottage development and a country club also present on the periphery.

Special features of this site include: a major waterfowl staging area; breeding habitat for one endangered species (Bald Eagle); possible heronry site (Great Egret); rare fauna (Spotted Turtle, Eastern Fox Snake); rare flora (Ptelea trifoliata, Vernonia missurica, Platanthera leucophea, Arisaema dracontium, Silphium terebinthinaceum).

Big Creek Marsh complements the shoreline marsh vegetation representation offered by the St. Clair marshes. In addition, this site provides some representation of upland forest on creek valley rims and slopes. The forested portions buffer the area from adjacent land uses, and contribute to the overall diversity of the CNR.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Botham, 1981; Klinkenberg, 1981: Klinkenberg and Klinkenberg, 1981; Oldham, 1982; OMNR, 1978; Pratt, 1981; Allen, 1984, pers. comm.

EVALUATION AND PRIORITIES

One of the best shoreline marshes in the site district and the largest wetland in Essex County, this site offers expanses of open water and the best representation of swamp forest, cattail marsh, and thicket communities.

DATE COMPILED	COMPILER
1981 Revised Fall, 1982	R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 7-1: SHORELINE MARSHES AND ASSOCIATED WETLANDS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Lake St. Clair Marshes	40J/8	835920

BRIEF DESCRIPTION
A 650 ha shoreline marsh on sand plain. Highly diverse community types include: sumberged aquatic communities, & meadow marsh. Disturbances include dyking & water level control, draining, hunting. Special features of the site include rare flora (Veronicastrum virginicum); rare fauna (Eastern Fox Snake, Spotted Turtle, Blanding's Turtle, Eastern Spiny Softshell Turtle); waterfowl staging area; fish spawningareas. A candidate nature reserve.

SOURCES
Klinkenberg, 1981; Klinkenberg & Klinkenberg, 1978-81; Klinkenberg, 1978; Gow, 1980 & 1981, OMNR, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several:1978-1981	----------	----------	Klinkenberg/81 Revised 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Big Creek Marsh	40J/3	300560

BRIEF DESCRIPTION
A 600 ha shoreline marsh with associated creek system offering representation of various wetland vegetation communities including the best representation of swamp forest and thicket swamp, limited representation of beech communities and some upland forest representation. Disturbances include logging, filling, clearing, hunting and the presence of a dam, cottage development and a country club. Special features include: waterfowl staging area; Bald Eagle nesting site; rare flora and fauna (Spotted Turtle, Eastern Fox Snake, Ptelea trifoliata, Silphium terebinthinaceum); a possible heronry. A candidate nature reserve.

SOURCES
Oldham, 1982;Botham, 1981;Klinkenberg, 1981; IBP; Klinkenberg & Klinkenberg, 1981;OMNR, 1978; Prarr, 1981

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
February,81	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: SHORELINE MARSHES AND ASSOCIATED WETLANDS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Walpole Island Marshes Fens and Prairies	40J/10	720110

BRIEF DESCRIPTION

This 1600 ha site is primarily a wetland complex with upland oak-hickory forest occurring on associated ridges. Wetland vegetation types present include wet meadows, fen, cattail marsh & reed marsh. Disturbances to the site include agricultural activities, dyking, draining & channel improvements. Special features include a strong prairie component to the flora; numerous rare & endangered species (e.g. Polygala verticillata, Hypoxis hirsuta, Cypripedium candidum); rare fauna (e.g. king rail); colonial nesting birds (Black-crowned Night Heron; terns & gulls). If this site were not a Federal Indian Reserve, it would be recommended as a candidate nature reserve.

SOURCES

OMNR , 1978; Klinkenberg, 1982, 1979; University of Waterloo, 1980.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
June, 1979	———	———	Klinkenberg 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTA 1W3

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Canard River Mouth Marsh	40J/3	260710

BRIEF DESCRIPTION

A 250 ha marsh site located at the mouth of the Canard River. Vegetation types present include cattail marsh, meadow marsh and open water areas. The site is dyked and planted with cottonwoods, and water levels are controlled. Special features of the site include rare fauna (Eastern Fox Snake) and rare flora (Hibiscus palustris, Nuphar advena).

SOURCES

Oldham, 1982; OMNR, 1978.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
———	———	———	Klinkenberg 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONTA 1W3

1981

SITE DISTRICT 7-1: SHORELINE SANDSPITS AND WETLAND COMPLEXES

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Point Pelee National Park	Pelee Island	40G/15	740470

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LAT.: 41° 46'N | LONG.: 82 ° 31'W | ALT. MIN. MAX.: ca.573 ft.

LOCALITY: Leamington

TOWNSHIP LOTS CONCESSIONS: Mersea Township

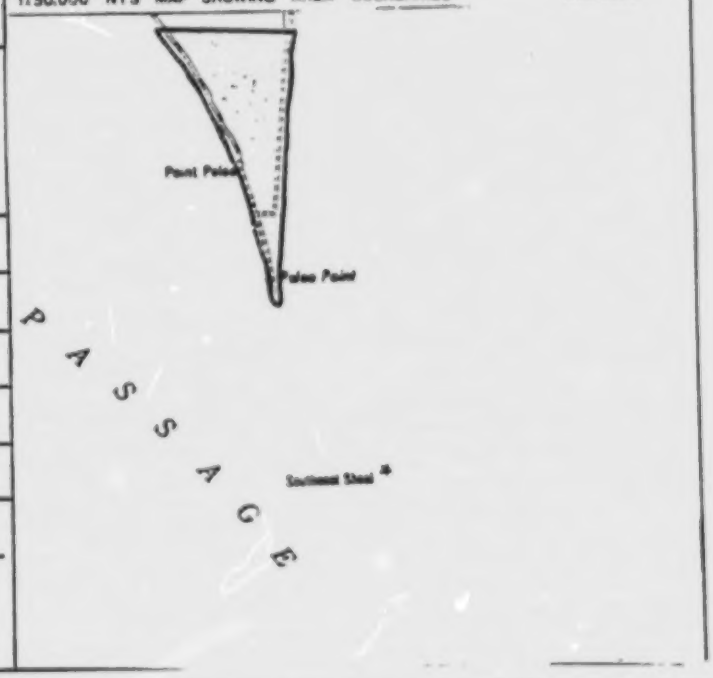
AREA: ca.2720 acres ca.1100 ha

OWNERSHIP: Public

ADMINISTRATION: National Parks

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	ERCA

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4169	51-58
1978	253	4168	59-64
1978	253	4167	65-69

PHYSICAL AND BIOLOGICAL FEATURES

This 445 ha shoreline sandspit and wetland complex offers representation of a variety of vegetation types including: cattail marsh, meadow marsh, reed marsh, thicket swamp, upland/lowland forest complexes, juniper savannah, cactus barrens, swamp and slough complexes and beach communities.

Disturbances to the site include vegetation trampling, an abundance of exotic plant species and some dwellings.

Point Pelee is widely known for its value as a migratory bird concentration area and stopover point, and as a waterfowl staging area. Other special features of the site include numerous rare species of flora and fauna (including Opuntia humifusa, Celtis tenuifolia, Justicia americana, Eastern Spiny Softshell Turtle, Spotted Turtle, Eastern Mole, Fowler's Toad, Giant Swallowtail).

Point Pelee offers the best representation of the following shoreline sandspit and wetland complex features in the site district: cattail marsh, buttonbush swamp, thicket swamp, juniper savannah and cactus barrens.

AERIAL PHOTOGRAPHS (cont'd)

1978	253	4166	70-74	1978	253	4164	40-42
1978	253	4165	75-78	1978	253	4163	79-81

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Klinkenberg and Klinkenberg, 1976 to 1982; Maycock et al, 1976; Parks Canada, 1982, 1981; Reznicek, 1982; Rivard and Smith, 1980; Stewart 1977; Stirret, 1973; Klinkenberg and Klinkenberg, 1984.

EVALUATION AND PRIORITIES

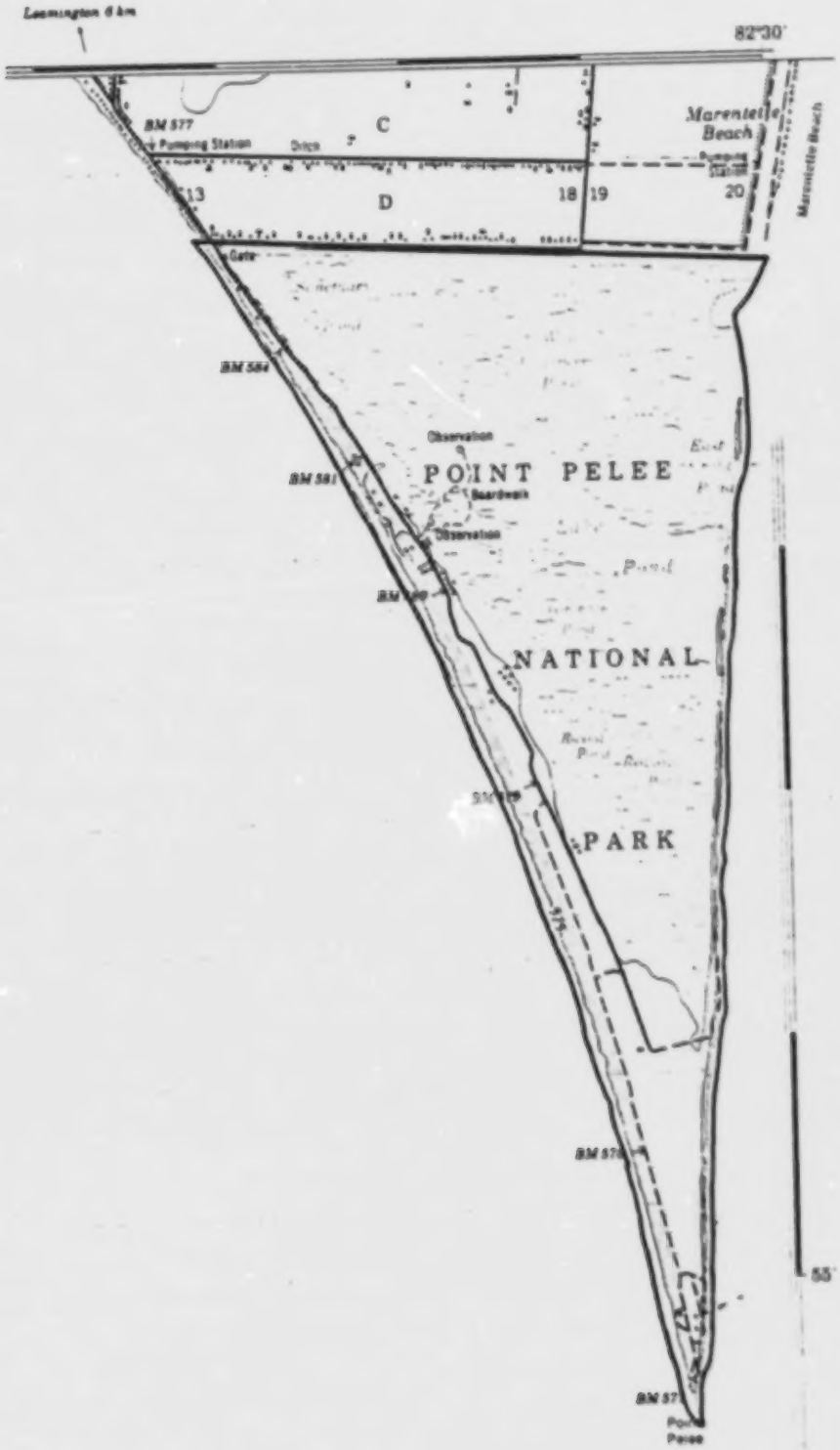
An outstanding example of shoreline sandspit and associated wetland vegetation complexes.

DATE COMPILED	COMPILER
Feb., 1981 Revised Fall, 1982	R. Klinkenberg

SITE DISTRICT 7-1: SHORELINE SANDSPITS AND WETLAND COMPLEXES

POINT PELEE NATIONAL PARK

40G/15 740470



SITE DISTRICT 7-1: SHORELINE SANDSPITS AND WETLAND COMPLEXES

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Point Pelee	40G/15	740470

This 445 ha site offers representation of several vegetation types including: cattail marsh, meadow marsh, reed marsh, thicket swamp, upland/lowland forest complexes, juniper savannah, cactus barrens and beach communities. Disturbances to the site include trampling, exotic plant species, dwellings. Special features include waterfowl staging, migratory bird concentration and stopover area, rare flora (Opuntia humifusa); rare fauna

SOURCES: Klinkenbergs, 1976-1982;Rivard & Smith, 1980; Stewart 1977; Maycock,1976;Parks Canada,1981,1982;Reznicek,1982

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several 1976-1982	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

(Spotted Turtle, Eastern Mole, Fowler's Toad). A candidate nature reserve.

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Hillman Marsh	40J/1	765540

A 362 ha site on bevelled till plain with representation of several vegetation types: shoreline barrier beaches, marsh, lowland woods & willow wetlands. Disturbances to the site include hunting, fishing, trapping, land reclamation threats & dyking. Special features include: migratory bird stopover site, rare fauna (Prothonotary Warbler, Spotted Turtle), rare flora (Ptelea trifoliata, Potentilla paradoxa, Polanisia dodecandra).

SOURCES: Oldham, 1982; Klinkenberg, 1976-82; Essex Region Conservation Authority, 1980; Johnson & Wannick, 1977

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several 1976-1982	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Rondeau Bay Marshes	40I/5	250840

This ca 100 ha wetland marsh provides good representation of cattail marsh, submergent aquatic communities & meadow communities. Disturbances to the site include extensive land development (cottages & subdivisions), filling, dyking & draining & agricultural runoff. Special features of the site include: a major waterfowl staging area, fish spawning beds, endangered species habitat (Bald Eagle), rare flora & fauna (Eastern Spiny Softshell

SOURCES: Klinkenberg, 1978; Klinkenberg & Klinkenberg, 1976-82 Klinkenberg, 1982; Schwindgt, 1980

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Several 1976-82	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

Turtle, Eastern Fox Snake, Cyperus ferruginescens, Eleocharis intermedia.

SITE DISTRICT 7-1: CREEK VALLEYS AND ADJOINING UPLANDS

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Cedar Creek	Essex Island	40J/2	500535

COUNTY, DISTRICT or REGIONAL MUNICIPALITY
ca. 7.5 km west of Kingsville

LAT. 42° 01'N | LONG. 82° 49'W | ALT. MIN. ca.573 ft. – MAX. 600 ft.

LOCALITY
Cedar Beach

TOWNSHIP LOTS CONCESSIONS
Gosfield South Township and
Colchester South Township

AREA
1220 acres ha

OWNERSHIP
Private and ERCA

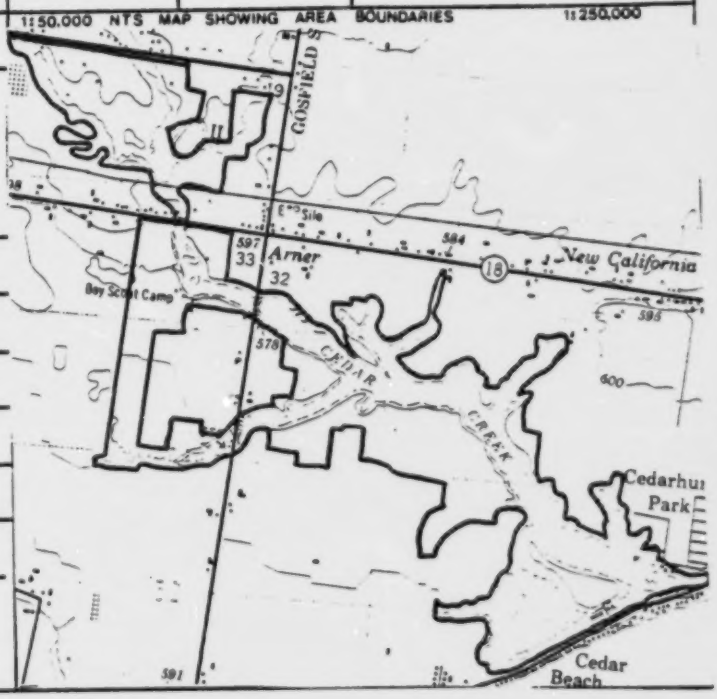
ADMINISTRATION
ERCA (in part)

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	ERCA

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	225	4203	228
1978	257	4202	67, 68

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 565 ha site on bevelled till plain provides representation of creek communities, shrub thickets, willow wetlands, open fields, lowland forest and upland forest in a wetland/creek valley system. A continuous band of forest lines both sides of the creek over much of the area, and the northern portion of the area includes some large ravines. The forest type is variable but includes high quality mature forest with strong Carolinian representation. It is the most extensive example of this forest type in Essex County. Species supported here include Carya ovata, Quercus velutina, Quercus bicolor, Sassafras albidum and Cornus florida.

Disturbances to the site include past and present grazing, past logging, hunting, dumping, and trampling and soil compaction in the vicinity of the boy scout camp.

Special features of the site, other than forest size and continuity, include: rare flora (Hydrastis, Arisaema dracontium, Scutellaria nervosa, Liparis lillifolia, Carya laciniosa, Smilax rotundifolia, Veronicastrum virginicum), rare fauna (Eastern Mole, Red-bellied Woodpecker, Bald Eagle), high numbers of Carolinian species.

This site is the best creek valley system with associated wetlands and valley forest in the site district. Final boundaries for the site should give adequate consideration to the contribution to site diversity made by both the wetlands and forested areas of this site.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Essex Region Conservation Authority, 1980; IBP, 1970; Johnson and Wannick, 1977; Klinkenberg, 1981; Oldham, 1982 & 1984; OMNR, 1978; Allen 1984.

EVALUATION AND PRIORITIES

The best creek valley system in the site district. This site provides representation of upland forest as well as creek habitats.

DATE COMPILED	COMPILER
Feb., 1981 Revised Fall, 1982	R. Klinkenberg

SITE DISTRICT 7-1: CREEK VALLEYS AND ADJOINING UPLANDS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Cedar Creek	40J/2	500535

BRIEF DESCRIPTION

A 565 ha site on bevelled till plain. Vegetation types include lowland woods, creek valley, oak savannah and shrub thickets. Majority of the site is the floodplain of Cedar Creek. Disturbances include dumping, past and present grazing, logging, hunting, boating. The site is surrounded by agricultural fields. Special features include rare flora and fauna(e.g., Red-bellied Woodpecker, Eastern Mole, Liparis lillifolia, Smilax rotundifolia).

SOURCES

Essex Region Conservation Authority,1980; Johnson & Wannick,1977; Oldham 1982; IBP, 1970; OMNR, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January,1981	----------	Klinkenberg/80 Revised, 1982	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

A candidate nature reserve.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Morpeth Ravine	40I/5	313920

BRIEF DESCRIPTION

A 60 ha ravine system supporting floodplain wetlands, old fields, and upland slope and rim forests. Disturbances to the site include dumping and trampling. A trailer camp is located adjacent to the ravine slope on the east side. Special features of the site include rare flora (Asimina triloba), rare fauna (American badger, Golden-winged Warbler).

SOURCES

OMNR, 1978; Klinkenberg, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several 1976	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Duthill Woodlot #1	40J/9	850295

BRIEF DESCRIPTION

A 20 ha site on bevelled till plain. Vegetation types present included upland (oak-hickory) woods, old field communities, creek bank communities, early successional ash-maple and juniper savannah. Disturbances to the site include logging. This is a WIA area.

SOURCES

Klinkenberg, 1981; OMNR, 1977.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: CREEK VALLEYS AND ADJOINING UPLANDS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Duthill Woodlot #3	40J/9	852272

BRIEF DESCRIPTION

A 80 ha site on bevelled till plain. Vegetation types include creek communities, old fields and upland oak-hickory woods. Several trails are evident throughout the site. Connections to other natural areas are present.

SOURCES

Klinkenberg, 1981; OMNR, 1977.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: PRAIRIES AND ALVARS

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Stone Road Alvar	Pelee Island	40G/15	640240

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LOCALITY: Pelee Island

TOWNSHIP / LOTS / CONCESSIONS: Pelee Township

AREA: 124 acres 50 ha

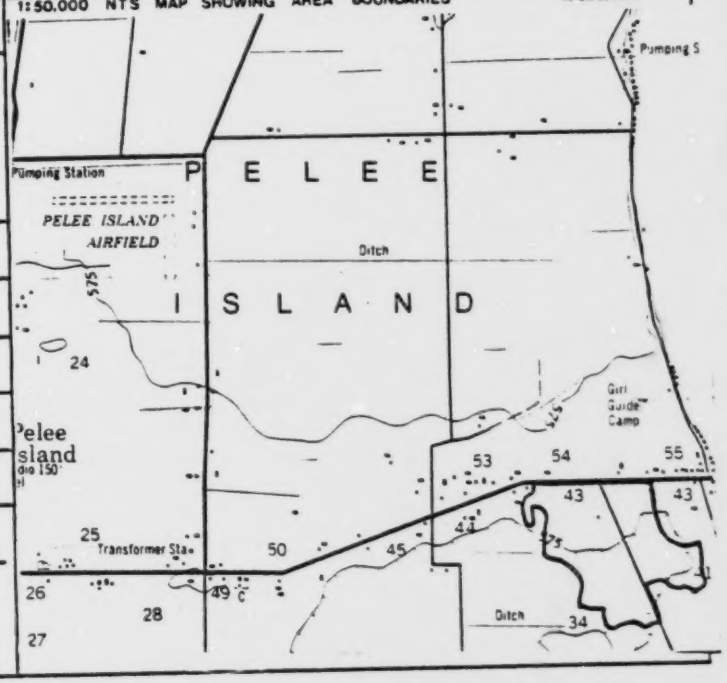
OWNERSHIP: Private

ADMINISTRATION: ----------

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	ERCA

LAT.	LONG.	ALT. MIN.	MAX.
41° 46'N	82 ° 38 'W	ca.575 ft.	

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4152	131, 132
1978	253	4153	122-124

PHYSICAL AND BIOLOGICAL FEATURES

This ca. 50 ha site is a limestone plain or alvar of a southern type not represented elsehwere in Ontario, and is disjunct from other limestone plains in Ontario by several hundred miles. The limestone bedrock is generally covered by a thin layer of soil, but is exposed in some locations. A similar site on Pelee Island, East-West Savannah, is more disturbed and supports fewer significant species.

Vegetation types include alvar prairie, open grasslands grading into old field communities, chinquapin oak-blue ash savannah, and blue ash-sugar maple-basswood hardwood forest.

The site is generally very intact with some sections of past grazing and cultivation, but is threatened by increased people pressure which may result from additional proposed campgrounds to the north and a marina enlargement and hotel complex to the southwest.

Special features of the site include high numbers of rare southern plant species (Allium cernuum, Ptelea trifoliata, Camassia scilloides, Ranunculus fascicularis, Thalictrum revolutum, Valerianella intermedia), rare fauna (Small-mouth Salamander, Giant Swallowtail) and an endangered species (Blue Racer).

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Catling et al, 1975; Johnson and Wannick, 1977; Klinkenberg (in prep.); Klinkenberg, 1981; Oldham, 1982; Oldham, 1981-82; OMNR, 1977; Stuckey and Duncan (in press).

EVALUATION AND PRIORITIES

One of the most outstanding alvars in the province.

DATE COMPILED	COMPILER
Feb., 1981 Revised Fall, 1982	R. Klinkenberg

Parks Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 7-1: PRAIRIES AND ALVARS

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Prairie Remnants Adjacent to Ojibway Prairie Prov. Nature Reserve	Windsor	40J/6	295810

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LAT. ° 'N | LONG. ° 'W | ALT. MIN. MAX. ----------

LOCALITY: Southwest of Windsor within city limit

TOWNSHIP / LOTS / CONCESSIONS: Sandwich West Township
City of Windsor

AREA: 620 acres 250 ha

OWNERSHIP: Private, City

ADMINISTRATION: City of Windsor (in part)

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	ERCA

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR | ROLL | FLIGHT LINE | NUMBERS

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000

PHYSICAL AND BIOLOGICAL FEATURES

This 250 ha composite site consists of several small areas of remnant prairie, and includes 2 areas which have already been designated as proposed acquisition areas for the Ojibway Prairie Provincial Nature Reserve. These remnants include: (1) Spring Garden Road Prairie (48 ha); (2) Ojibway Black Oak Woods (46 ha); (3) Prairie Remnant North of Titcombe Road (proposed Acquisition Area) (40 ha); (4) Ojibway Park (44 ha); (5) Proposed Acquisition Area Southeast of the Nature Reserve (40 ha); (6) Prairie Site Northwest of Ojibway Prairie* (? ha). Oldham (1984) provides a detailed discussion of two of these areas, while Pratt (1979) discusses the others.

Combined prairie vegetation types found in these areas include forb prairie, black oak forest, open grassland, scrub, tall-grass prairie.

Disturbances to these remnants include railway tracks and roadways, dirt bike trails and dumping.

Many rare plant species have been noted in these areas including: Fimbristylis autumnalis, Viola sagittata, Ludwigia alternifolia, Liatris spicata, Salix humilis and Aureolaria flava.

* For precise locality information contact P. Pratt, City of Windsor.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Oldham, 1982 and 1984; Pratt, 1979.

EVALUATION AND PRIORITIES

Outstanding pockets of remnant prairie vegetation which complement the representation provided by Ojibway Prairie Provincial Nature Reserve.

DATE COMPILED	COMPILER
February, 1982	R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 7-1: PRAIRIES AND ALVARS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Stone Road Alvar	40C/15	640240

BRIEF DESCRIPTION

This ca. 50 ha site is located on limestone bedrock covered by a thin layer of soil, with some sections of exposed bedrock. Vegetation types present include alvar prairie, chinquapin oak-blue ash savannah, hardwood forest and old fields. Disturbances to the site include past grazing and cultivation with some recent threat of increased people pressure as a result of proposed island developments. Special features include rare flora and

SOURCES

OMNR, 1977; Reznicek, 1981-83; Oldham, 1982; Catling et al, 1975; Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several: 1981 and 1982	----------	Klinkenberg/81 Revised, 1982	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

fauna (Allium cernuum Camassia scilloides, Valerianella intermedia, Small-mouthed Salamander) and endangered species (Blue Racer).

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Prairie Remnants Adjacent To Ojibway Prairie Provincial Nature Reserve	40J/6	295810

BRIEF DESCRIPTION

This ca. 250 ha composite site includes 6 areas of prairie remnants (Ojibway Black Oak Woods, Spring Garden Road Prairie, Prairie Remnant North of Titcombe Road, Ojibway Park, Proposed Acquisition Area Southeast of Ojibway Prairie Nature Reserve, Prairie Site Northwest of Ojibway Prairie). Vegetation types present include forb prairie, black oak forest, open "grassland", scrub, tall-grass prairie. Disturbances to the site include dirt

SOURCES

Oldham, 1982 & 1984; Pratt, 1970; 1981 & 1982; Klinkenberg, 1978-1981

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several 1978-1981	----------	Klinkenberg 1982	Klinkenberg 1982

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

bike and hiking trails, dumping, railway tracks and roadways dissect the overall area. Special features include rare plant communities (prairie and oak forest), rare flora (e.g. Aureoloaria flava, Liatris spicata), rare fauna.

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	East-West Road Savannah	40G/15	605239

BRIEF DESCRIPTION

Also called Red Cedar Savannah, this ca.80 ha site supports a strong prairie element. Vegetation types present include juniper savannah, open forest (blue ash-chinquapin oak, hackberry). Best example of juniper savannah found on Pelee Island (Reznicek, pers.comm.). Special features include rare species (Celtis tenuifolia, Fraxinus quadrangulata, rare salamander hybrid). A Bald Eagle nest is reported to the north of this site.

SOURCES

Reznicek, 1981; Oldham, 1982.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
Reznicek October, 1980	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: PRAIRIES AND ALVARS

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Chenal Ecarte Prairie	40J/9	852087

BRIEF DESCRIPTION

A 12 ha site on clay plain. Vegetation types present include lowland woods, and a pocket of prairie in the northwest corner. Disturbances to the site include farm dumping, logging and snowmobiling. Special features include prairie communities, rare flora (Veronicastrum virginicum, Asclepias sullivantii.

SOURCES

OMNR, 1978; Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	_____	_____	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1901

SITE DISTRICT 7-1: UPLAND/LOWLAND FOREST COMPLEXES ON CLAY PLAIN

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Sinclair's Bush	Ridgetown	40I/5	225855

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Kent

LOCALITY: ca. 7. 5 km north of Shrewsbury

TOWNSHIP: Harwich — LOTS — CONCESSIONS

AREA: ca. 125 acres ca. 50 ha

OWNERSHIP:

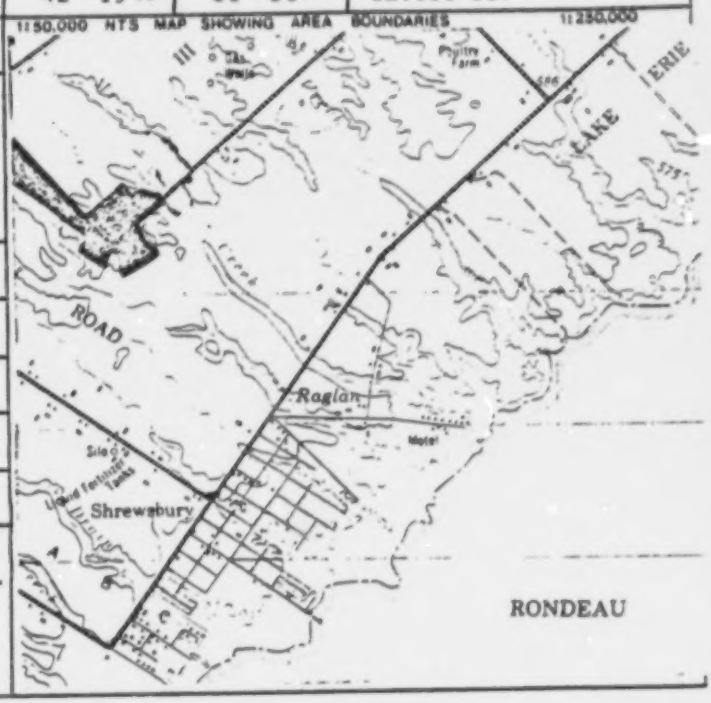
ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY
SW-Chatham	LTVCA

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	258	4223	183

LAT.	LONG.	ALT. MIN.	MAX.
42° 19'N	81° 56'W	ca.600 ft.	



PHYSICAL AND BIOLOGICAL FEATURES

This 50 ha predominantly upland woods on clay plain in the St. Clair Clay Plain supports several vegetation types including upland woods, lowland woods, marshy ponds and a creek community. The site is mainly an old sugarbush dominated by sugar maple with pockets of beech.

Disturbances to the site mainly relate to its sugarbush function (selective cutting, sugar shack, small laneway and some roadside cutting of Asimina triloba). Some dumping has been occurring. The site may now be under a forest management agreement.

Special features of the site include several Carolinian species, rare flora and fauna (Asimina triloba, Mimulus alatus, Red-bellied Woodpecker).

This site includes Shrewsbury Sandy Loamland.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Klinkenberg, 1978; OMNR, 1978; Pratt, 1978, Allen, 1985.

EVALUATION AND PRIORITIES

The best known example of maple-beech upland woods in the site district.

DATE COMPILED	COMPILER
February, 1981	R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON CLAY PLAIN

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Sinclair's Bush	40I/5	225855

MAP DESCRIPTION

A 50 ha upland/lowland complex which is primarily upland (and includes Shrewsbury Sandy Loamland). Vegetation types present include upland (beech/maple) forest, lowland forest, marshy ponds and creek communities. Disturbances to the site include past logging, sugar shack, small laneway and dumping. Special features include Carolinian species and rare flora and fauna (Asimina triloba, Red-bellied Wood-pecker). A candidate nature reserve.

REFERENCES

OMNR, 1978; Klinkenberg, 1978; Pratt, 1978, Allen, 1985.

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
several 1978-1981	----------	Klinkenberg 1981	Klinkenberg 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Barretville Clay Plain Forest	40J/2	425625

MAP DESCRIPTION

A 80 ha site on clay plain. Vegetation types include 2nd growth lowland woods. Site disturbances include logging and draining. Survey stakes present. Special features include rare flora (Quercus palustris, Quercus bicolor).

REFERENCES

OMNR, 1978; IBP, 1970; Klinkenberg, 1981.

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Marshfield Clay Plain Forest	40J/2	440590

MAP DESCRIPTION

A 110 ha site on clay plain. Vegetation types present incude 2nd growth lowland woods, upland (oak-hickory) woods, old fields and poplar savannah. Disturbances to the site include past grazing, draining, hunting. Portions currently for sale. Special features include Carolinian species and rare flora (Quercus palustris, Quercus bicolor, Platanus occidentalis).

REFERENCES

Klinkenberg, 1981; OMNR, 1978; IBP, 1970.

FIELD SURVEY DATE	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON CLAY PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Jeannette's Creek Woods	40J/8	912862

BRIEF DESCRIPTION

Two small woodlots, totalling 25 ha, on clay plain. Vegetation is primarily lowland woods, with several rare plant species occurring (Carya laciniosa, Quercus macrocarpa). Disturbances to the site include logging, draining, dyking and bulldozing.

SOURCES

Klinkenberg, 1978; OMNR, 1977; Klinkenberg, 1981

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg,81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, ONT. M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON SAND PLAIN

ONTARIO NATURE RESERVES PROGRAM – LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Oxley Poison Sumac Swamp	Essex	40J/2	450520

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LAT. 42° 00'N | LONG. 83° 53'W | ALT. MIN. ---- MAX. ----

LOCALITY: ca. 3 miles southeast of Harrow

TOWNSHIP / LOTS / CONCESSIONS: Colchester South Township

AREA: ca. 100 acres ca. 40 ha

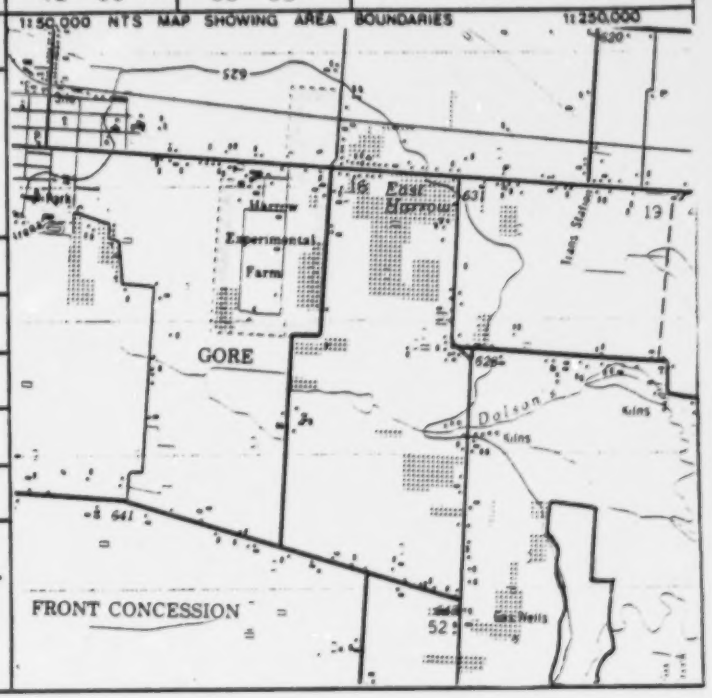
OWNERSHIP: Private

ADMINISTRATION:

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	**CONSERVATION AUTHORITY**
SW-Chatham	ERCA

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4201	14



PHYSICAL AND BIOLOGICAL FEATURES

This 40 ha site on sand plain is predominantly low-lying and swampy. Vegetation types present include lowland thicket (dogwood-poison sumac) swamp, sedge meadow, and lowland forest (yellow birch-red/silver maple), with drier portions in the northeast offering some upland woods representation.

Disturbances to the site include current grazing in the north end, several trails, siltation from surrounding farmlands and draining. Siltation, nutrient enrichment and pesticide contamination are potential problems.

Special features of the site include rare plant communities (poison sumac-dogwood swamp), rare flora (Agrimonia parviflora, Pedicularis lanceolata, Eupatorium purpureum, Krigia biflora, Carex tetanica, Geum vernum), rare fauna (Eastern Mole, Five-lined Skink).

The site may be currently threatened by intended clearing for agricultural purposes.

Final boundaries for the site should give serious consideration to the establishment of an adequate buffer zone.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION	☐	SUMMARY SPECIES LISTS	☐
VEGETATION SUMMARY	☐	PHYSICAL FEATURES MAP	☐
EVALUATION SHEET	☐	VEGETATION MAP	☐
COMMUNITY DESCRS.	☐	BIBLIOGRAPHY	☐
COMMUNITY COMP. LISTS	☐	PHOTOGRAPHS	☐

MAJOR INFORMATION SOURCES

Klinkenberg, 1978; Oldham, 1982; OMNR, 1978; Allen, 1984, pers. comm.

EVALUATION AND PRIORITIES

The best quality representation of lowland forest on sand plain which supports the only poison sumac swamp in the site district.

DATE COMPILED	COMPILER
September, 1982	R. Klinkenberg

Ontario Ministry of Natural Resources, Division of Parks, Park Planning Branch, Queen's Park, Toronto, Ontario, M7A 1W3

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON SAND PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Oxley Poison Sumac Swamp	40J/2	450520

BRIEF DESCRIPTION
A 40 ha sand plain site with lowland forest; sumac-dogwood thicket swamp; sedge meadow. Drier pockets in the northeast corner offer some upland woods representation. Disturbances include grazing, several trails, and siltation and nutrient input from surrounding agricultural fields. Special features of the site include rare plant communities (Rhus vernix), rare flora (Krigia biflora, Carex tetanica, Geum vernum, rare fauna (Eastern Mole).

SOURCES
OMNR, 1978; Klinkenberg, 1978; Oldham, 1982.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	Klinkenberg/81	Klinkenberg/81 Revised,1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Colchester Sand Plain Woods	40J/2	412520

BRIEF DESCRIPTION
A 35 ha site on sand plain supporting several vegetation types including lowland (red maple) swamp forest, upland (oak-hickory) forest, early successional poplar stands. Disturbances to the site include past and present logging and draining. Some sections are currently for sale.

SOURCES
OMNR, 1978; IBP, 1970; Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Leamington Sand Hills Complex	40J/2	735568

BRIEF DESCRIPTION
(Hillman Cinnamon Fern Woods)
(includes Leamington, Wheatley and Hillman Sand Hills)
A 40 ha site on sand plain. Vegetation types present include oak uplands, and silver maple/red maple lowland swamp forest. Disturbances to the site include past and present logging, some clearing, grazing and fire. Special feature of the site include strong Carolinian representation, rare flora (Triphora trianthophora, Nyssa sylvatica).

SOURCES
OMNR, 1978; IBP, 1970.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON SAND PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Arner Spleenwort Woods	40J/2	462535

SHORT DESCRIPTION

A 10 ha upland site on sand plain. Vegetation type is maple-beech upland woods with a strong Carolinian floristic component. Disturbances to the site include selective logging, dwellings, and forest management. Special features include high numbers of ferns, high numbers of Carolinian species, rare flora (Aplectrum hyemale, Orchis spectabilis).

SOURCES

OMNR, 1978; Klinkenberg, 1978; Oldham, 1982.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Van Horne Sugar Maple Stand	40J/8	972122

SHORT DESCRIPTION

A 45 ha site on sand plain. Vegetation types present include upland (maple-beech) forest, lowland (swamp white oak/ash) forest, oak uplands. Disturbances include past and present logging, maple sap collection, hydro corridor. The site is a source area for a tributary of McGregor Creek. Several Carolinian species are present.

SOURCES

IBP, 1970; Klinkenberg, 1981; Klinkenberg, 1978; OMNR, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Louisville Sand Plain Woods	40J/8	035102

SHORT DESCRIPTION

A 12 ha site on gently rolling sand plain. This site is primarily lowland woods with pockets of upland (beech-maple) woods, with creek communities. Past logging is evident, with some stream modification (dam and pond). Several rare species are present.

SOURCES

OMNR, 1978; IBP, 1970; Klinkenberg, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
1978	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON SAND PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Pinehurst Sandy Loam Hills	40J/8	151980

BRIEF DESCRIPTION
A 12 ha site on sand plain supporting upland woods with pockets of lowland woods in depressions. Disturbances include past logging, bike trails, active gravel pit on western boundary. Special features include numerous Carolinian species including Asimina triloba and Liriodendron tulipifera.

SOURCES
IBP, 1970; Klinkenberg, 1978; OMNR, 1978.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Selton Rolling Sand Land	40I/12	181073

BRIEF DESCRIPTION
A 50 ha site on gently rolling sand land supporting 2nd growth lowland woods mixed with upland (sugar maple-basswood) forest. Disturbances include past grazing, logging, exotic species, dump site and some clearing. Special features include Carolinian species and rare species (largest known stand of pawpaw in southern Ontario).

SOURCES
Klinkenberg, 1981; IBP, 1970; Klinkenberg, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	x	Kopegaron Woods	40J/ 1	765590

BRIEF DESCRIPTION
An 11 ha wooded site supporting upland forest (red ash-silver maple) forest. Past disturbances to the site include selective cutting. Special features of the site include rare fauna (Eastern Mole), rare flora (Quercus bicolor, Nyssa sylvatica).

SOURCES
Oldham, 1982

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
----------	----------	----------	Klinkenberg/82

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON BEVELLED TILL PLAIN

ONTARIO NATURE RESERVES PROGRAM - LIFE SCIENCE INVENTORY CHECK-SHEET

NAME	MAP NAME	MAP NUMBER	UTM REF.
Middle Island	Middle Island	40G/10	600157

COUNTY, DISTRICT or REGIONAL MUNICIPALITY: Essex

LAT. 41 °40 'N | LONG. 82 ° 41'W | ALT. MIN. ---------- MAX.

LOCALITY: Erie Islands

TOWNSHIP LOTS CONCESSIONS: Gosfield South Township

AREA: ca. 100 acres ca. 46 ha

OWNERSHIP: Private

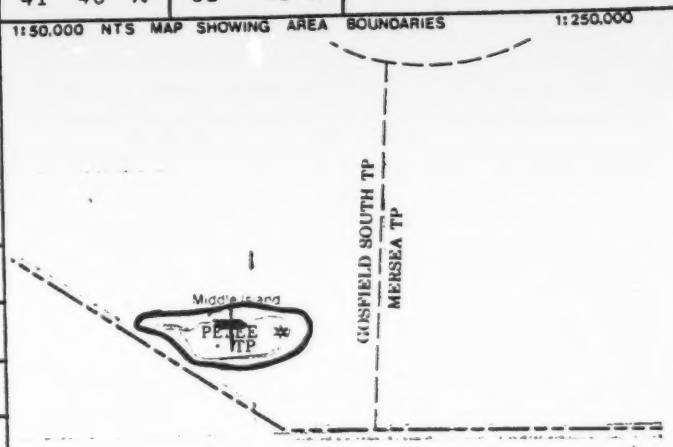
ADMINISTRATION: ----------

FOREST REGION AND DISTRICT	SITE REGION AND DISTRICT
D-1	7-1
MNR REGION AND DISTRICT	CONSERVATION AUTHORITY

AERIAL PHOTOGRAPHS — BASE MAP:

YEAR	ROLL	FLIGHT LINE	NUMBERS
1978	253	4148	143 - 145

1:50,000 NTS MAP SHOWING AREA BOUNDARIES 1:250,000



PHYSICAL AND BIOLOGICAL FEATURES

This 46 ha island site supports several lowland forest community types on shallow soil over limestone, including hackberry, hackberry-black maple, hop tree-blue ash-hackberry-chinquapin oak communities, scrub and pond communities.

Disturbances to the site result from previous human habitation and include a dwelling, lawn, old runway and a dump site.

Special features of the island include rare plant communities (mature hackberry forest, hop-tree dominated scrub and a strong blue ash component), rare flora (Camassia scilloides, Gymnocladus dioica, Corydalis flavula, Justicia americana, Carex gravida, Carex davisii, Lactuca floridana), rare fauna (Great Egret, Black-crowned Night Heron) and endangered species (Lake Erie Water Snake, former nesting site for Bald Eagle). In addition, the island limestone shoreline occurs in Essex County only on Middle Island and adjacent small islands.* The limestone slabs on the shoreline contain the richest fossil beds among all the Erie Islands. The island is also Canada's southernmost land mass.

* Pelee Island has limited amounts of limestone shoreline.

DATA SHEETS ATTACHED

PHYSICAL DESCRIPTION		SUMMARY SPECIES LISTS	
VEGETATION SUMMARY		PHYSICAL FEATURES MAP	
EVALUATION SHEET		VEGETATION MAP	
COMMUNITY DESCRS.		BIBLIOGRAPHY	
COMMUNITY COMP. LISTS		PHOTOGRAPHS	

MAJOR INFORMATION SOURCES

Dowhan et al, 1981; Mineau and Markel, 1981; Oldham, 1982 & 1984; Rennie, 1981; Reznicek, 1981, Woodliffe, 1982.

EVALUATION AND PRIORITIES

The best quality example of lowland forest on bevelled till plain and one of the best hackberry forests in the site district.

DATE COMPILED	COMPILER
September, 1982	R. Klinkenberg

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON BEVELLED TILL PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Middle Island	40G/10	600157

BRIEF DESCRIPTION
A 46 ha island on Lake Erie. This site supports lowland forest, scrub and pond vegetation types. Previous human habitation has left a dwelling, old runway, overgrown lawn and a dump site. Special features include rare plant communities (e.g., hackberry forest), rare fauna (e.g., Great Egret), rare flora (Lactuca floridana, Carex davisii, Carex gravida) and endangered species (e.g., Lake Erie Water Snake).

SOURCES
Oldham, 1982; Rennie, 1982; Reznicek, 1981; Dowham et al, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
----------	----------	Klinkenberg 1982	Klinkenberg 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Canard River Scout Camp	40J/3	317710

BRIEF DESCRIPTION
A 35 ha site supporting lowland (silver maple/red maple) forest with areas of hawthorn scrub and oak-hickory-maple uplands. Scattered large trees with younger secondary growth predominate indicating past clearing and grazing. Snowmobiling activity is frequent here. The site is a reported crow roost.

SOURCES
Oldham, 1982; Klinkenberg, 1981; OMNR, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January 1981	----------	----------	Klinkenberg/81 Revised, 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Ruthven Rocky Woods	40J/2	595585

BRIEF DESCRIPTION
A 25 ha site supporting pockets of upland forest (oak-hickory) with lowland woods. Logging, snowmobiling were noted on the site. Special features include Carolinian rare flora (Liriodendron tulipifera, Asimina triloba, Platanus occidentalis).

SOURCES
OMNR, 1978; Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON BEVELLED TILL PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Cameron Scott's Woods	40J/2	655635

BRIEF DESCRIPTION

A 40 ha site supporting lowland forest (silver maple-ash-pin oak) and upland (oak) forest. Logging, hunting and land development have affected the area. The site is much reduced from previous reports. Carolinian/rare species representation includes Nyssa sylvatica, Sassafras albidum, Liriodendron tulipifera.

SOURCES

Klinkenberg, 1981; OMNR, 1978; IBP, 1970.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Emeryville Clay Plain Woods	40J/7	543801

BRIEF DESCRIPTION

A 12 ha site on bevelled till plain. Vegetation types present include 2nd growth lowland forest, upland forest pockets. Disturbances to the site have been severe in the past and include clearing and logging. Recent clearing activities. Special features of the site include Carolinian species and rare flora (Quercus palustris, Quercus bicolor).

SOURCES

OMNR, 1978; Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg, 1981

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Middle Point Woods	40G/15	648283

BRIEF DESCRIPTION

A 25 ha site on bevelled till plain. Vegetation types include deciduous forest on low sand dunes with red/silver maple lowland forests in wet depressions, with sand and shingle beach areas. Disturbances include past logging, while special features include rare flora (Ptelea trifoliata, Camassia scilloides), rare fauna (Small-mouthed Salamander and Red-bellied Woodpecker).

SOURCES

Klinkenberg, 1981; Oldham, 1982; Reznicek, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
1981	----------	----------	Klinkenberg/81 Revised 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

SITE DISTRICT 7-1: LOWLAND/UPLAND FOREST COMPLEXES ON BEVELLED TILL PLAIN

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Canard River Kentucky Coffee-Tree Woods	40J/2	355660

BRIEF DESCRIPTION

A ca. 100 ha site mainly supporting lowland floodplain forest (ash-elm), small areas of upland woods on dry ridges, hawthorn scrub, and abandoned field communities. Disturbances include hiking trails, grazing, trampling, and ski trails. The site is surrounded by agricultural fields. Special features include rare fauna (Eastern Fox Snake), rare flora (Saururus cernua, Gymocladus dioica).

SOURCES

Oldham, 1982; Klinkenberg, 1981; OMNR, 1978

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
January, 1981	----------	----------	Klinkenberg/81 Revised 1982

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

EARTH	LIFE	NAME OF AREA	MAP SHEET	UTM REFERENCE
	X	Devonwood	40J/7	366807

BRIEF DESCRIPTION

A 44 ha forested site typical of Essex County. Vegetation types present are predominantly lowland forest with red ash-white elm-pin oak and bur oak. Disturbances to the site include pasturing, logging, trails forest management and dirt bikes. Special features of this site include an abundance of oak species including Q. palustris, Q. shumardii, and several hybrid oaks (pin x black; bur x swamp white, shumard x black).

SOURCES

Pratt, 1983, Klinkenberg, 1981.

FIELD SURVEY (DATE)	EARTH SCIENCE CHECK SHEET	LIFE SCIENCE CHECK SHEET	DATA CARD COMPILED
----------	----------	----------	Klinkenberg, 1983

ONTARIO NATURE RESERVES PROGRAM
ENVIRONMENTAL DATA CARD

ONTARIO MINISTRY OF NATURAL RESOURCES
PARK PLANNING BRANCH ENVIRONMENTAL PLANNING SECTION
3rd FLOOR, WHITNEY BLOCK, QUEEN'S PARK, TORONTO, M7A 1W3

1981

APPENDIX C: DOCUMENTED SITES OF BIOLOGICAL SIGNIFICANCE

1. Site District 7-1: Sites of biological significance with background information listed by 1:50,000 N.T.S. map sheet.

1:50,000 N.T.S. maps included in Site District 7-1, listed from west to east, north to south.

40J/6
40J/3
40J/10
40J/7
40J/2
40G/15
40G/10
40J/9
40J/8
40J/1
40I/12
40I/5

LEGEND OF ABBREVIATIONS

IBP - Site studied as part of International Biological Program

ESA - Environmentally sensitive area identified in a report for a regional municipality, county or conservation authority

1. Lambton County E.S.A. 1979
2. Lower Thames Valley E.S.A. 1978

SA - Ontario Ministry of Natural Resources Sensitive Areas

INT - Ontario Ministry of Natural Resources internal reports

OTHER - Other sources of information such as published articles, government reports

	UTM GRID REFERENCES	INFORMATION SOURCE
40J/6 Windsor		
The Windsor Prairie	295805	IBP
Prairie Remnants Adjacent to Ojibway Prairie	295805	
	295810	
	289832	
	285815	
	277812	
	307807	
40J/3 Amherstburg		
River Canard Marsh	260710	SA
Malden Centre (Big Creek) Marsh	300560	IBP,SA
Canard River Scout Camp	317710	SA
Holiday Beach Provincial Park	320550	INT
40J/10 Port Lambton		
Susan Pinnance Memorial Plant Prairie	738166	Other
Walpole Island	740120	ESA(1)
40J/7 Belle River		
Fairplay Woodlot	450790	SA
Emmeryville Clay Plain	543801	IBP,SA
Tremblay Beach Provincial Park	740850	INT
Walpole Island Indian Reserve	750050	ESA(1)
40J/2 Essex		
Kentucky Coffee-Tree Woods	355660	SA
Colchester Sand Plain	412520	IBP,SA
Barrettville Clay Plain	425620	IBP,SA
Marshfield Clay Plain	440590	IBP,SA
Fairplay Woodlot	450790	SA
Oxley Poison Sumac Swamp	452520	SA
Arner Spleenwort Woods	462535	SA
Cedar Creek Clay Slope and Floodplain	480555	IBP,SA
Cedar Creek	483545	SA
Ruthven Rocky Woods	595585	SA
Black Locust Ravine	600547	SA
Cameron Scott's Woods	655635	IBP,SA
Leamington Sand Hills	727564	IBP,SA
Wheatley Sand Hills	740573	IBP,SA
Hillman Sand Hills	743568	IBP,SA
40G/15 Pelee		
East Sister Island	457304	IBP SA,INT
Sheridan Point	600302	INT
--	614295	INT
Lighthouse Point Nature Reserve (sand dunes and ponds)	640315	IBP,SA,INT

Stone Road - Savannah	643238	SA,INT
Middle Point - Pelee Island (Brown's Point Woods)	648285	SA,INT
40G/10 Middle Island		
Fish Point Nature Reserve (sand plain)	605215	IBP,INT
Middle Island	599157	
40J/9 Wallaceburg		
Marshy Creek	775210	Other
Walpole Island Indian Reserve	790120	ESA(1)
Sassafras Woods	804230	ESA(1)
Clay Creek	805330	Other
Wilkesport Woodlot #3	850295	ESA(1)
Chenal Ecarte Prairie	852087	SA
Duthill Woodlot #1	852272	ESA(1)
Duthill Woodlot #3	855250	ESA(1)
Thamesville Sandhills	145060	ESA(2)
40J/8 Chatham		
Baptiste Creek	824835	SA
St. Clair National Wildlife Marsh	835920	SA
Lake St. Clair Marshes	840930	ESA(2),SA
Jeanette's Creek Woodlot	912862	ESA(2)
Jeanette's Creek Woodlot	917865	SA
Paxton's Bush	000962	ESA(2)
Louisville Sandplain	101033	IBP,ESA(2),SA
Van Horne Sugar Maple Stand	122972	IBP
Northwood Sugar Maple Stand	131028	IBP,ESA(2),SA
Selton Rolling Sandland	150050	ESA(2)
Pinehurst Sandy Loadland (Loam Hills)	151980	IBP,ESA(2),SA
Skunk's Woods	159816	SA
40J/1 Romney		
Hillman Marsh	760550	SA
40I/12 Bothwell		
Selton Rolling Sandland	181073	IBP,SA
40I/5 Ridgetown		
Sinclair's Bush	225855	ESA(2)
Shrewsbury Sandy Loamland (St. Clair's Bush)	229853	IBP,ESA(2),SA
Troy Woods	240920	ESA(2),SA
Rondeau Bay Marshes	250840	ESA(2)
Highgate Rolling Sandland	303030	IBP,ESA(2),SA
Bates Marsh	305875	ESA(2)
Morpeth Ravine (Creek)	313920	ESA(2),SA
Clear Creek	420004	ESA(2),SA

2. Site District 7-1: Sites of biological significance listed by physiographic region (Chapman and Putnam, 1973)

Physiographic Regions within 7-1:

St. Clair Clay Plains
Bothwell Sand Plain
Erie Spits
Pelee Island

St. Clair Clay Plains

	UTM GRID REFERENCES	INFORMATION SOURCE
40J/6 Windsor		
The Windsor Prairie	295805	IBP
Prairie Remnants Adjacent to Ojibway Prairie Nature Reserve	295805 295810 289832 285815 277812 307807	
40J/3 Amherstburg		
River Canard Marsh	260710	SA
Malden Centre (Big Creek) Marsh	300560	IBP,SA
Canard River Scout Camp	317710	SA
Holiday Beach Provincial Park	320550	INT
40J/10 Port Lambton		
Susan Pinnance Memorial Plant Reserve	738166	Other
Walpole Island Indian Reserve	790120	ESA(1)
40J/7 Belle River		
Fairplay Woodlot	450790	SA
Emmeryville Clay Plain	543801	IBP,SA
Tremblay Beach Provincial Park	740850	INT
Walpole Island Indian Reserve	750050	ESA(1)
40J/2 Essex		
Kentucky Coffee-Tree Woods	355660	SA
Colchester Sand Plain	412520	IBP,SA
Barrettville Clay Plain	425620	IBP,SA
Marshfield Clay Plain	440590	IBP,SA
Fairplay Woodlot	450790	SA
Oxley Poison Sumac Swamp	452520	SA
Arner Spleenwort Woods	462535	SA
Cedar Creek Clay Slope and Floodplain	480555	IBP,SA
Cedar Creek	483545	SA
Ruthven Rocky Woods	595585	SA

Black Locust Ravine	600547	SA
Cameron Scott's Woods	655635	IBP,SA
Leamington Sand Hills	727564	IBP,SA
Wheatley Sand Hills	740573	IBP,SA
Hillman Sand Hills	743568	IBP,SA
40J/9 Wallaceburg		
Marshy Creek	775210	Other
Walpole Island Indian Reserve	790120	ESA(1)
Sassafras Woods	804230	ESA(1)
Clay Creek	805330	Other
Wilkesport Woodlot #3	850295	ESA(1)
Chenal Ecarte Prairie	852087	SA
Duthill Woodlot #1	852272	ESA(1)
Duthill Woodlot #3	855250	ESA(1)
40J/8 Chatham		
Baptiste Creek	824835	SA
St. Clair National Wildlife Area	835920	SA
Lake St. Clair Marshes	840930	ESA(2),SA
Jeanette's Creek Woodlot	912862	ESA(2)
Jeanett'e Creek Woodlot	917865	SA
Skunk's Woods	159816	SA
40J/1 Romney		
Hillman Marsh	760550	SA
40J/5 Ridgetown		
Sinclair's Bush	225855	ESA(2)
Shrewbury Sandy Loamland (Sinclair's Bush)	229853	IBP,ESA(2),Sa
Troy Woods	240920	ESA(2)
Highgate Rolling Sandland	303030	IBP,ESA(2),SA
Morpeth Ravine	313920	ESA(2),SA
Bothwell Sand Plain		
40J/9 Wallaceburg		
Thamesville Sandhills	145060	ESA(2)
40J/8 Chatham		
Paxton's Bush	000962	ESA(2)
Louisville Sandplain	101033	IBP,ESA(2),Sa
Van Horne Sugar Maple Stand	122972	IBP
Northwood Sugar Maple Stand	131028	IBP,ESA(2),SA
Selton Rolling Sandland	150050	ESA(2)
Pinehurst Sandy Loamland (Loam Hills)	151980	IBP,ESA(2),SA
40I/12 Bothwell		
Selton Rolling Sandland	181073	IBP,SA

40I/5 Ridgetown

Clear Creek	420004	ESA, SA

Erie Spits

40J/1 Romney

Hillman Marsh	760550	SA

40I/5 Ridgetown

Rondeau Bay Marshes	250840	ESA
Bates Marsh	305875	ESA

Pelee Island

40G/15 Pelee

East Sister Island	457304	IBP, SA, INT
Sheridan Point	600302	INT
--	614295	INT
Lighthouse Point Nature Reserve (sand dune and ponds)	640315	IBP, SA, INT
Stone Road - Savannah	643238	SA, INT
Middle Point - Pelee Island (Brown's Point Woods)	640285	SA, INT

40G/10 Middle Island

Fish Point Nature Reserve (sand plain)	605215	IBP, INT
Middle Island	599157	

APPENDIX D: POLICY FOR AREAS OF NATURAL AND SCIENTIFIC INTEREST

Areas of Natural and Scientific Interest (ANSIs) are areas of land and water containing natural landscapes or features which have been identified as having values related to protection, natural heritage appreciation, scientific study or education.

ANSIs may vary in level of significance. The most significant of these may contribute to the achievement of the Ministry's protection objective.

Where ANSIs occur on public lands managed by the Ministry, it will ensure that the land uses and activities which occur provide for the protection of identified values.

On private lands, the Ministry will, through cooperation with others, attempt to ensure that landowners are aware of significant features on their properties and seek the owners' cooperation in protecting such features. The identification of areas of natural and scientific interest on private land does not indicate an intent of the Ministry to acquire this land.

ANSIs encourage the protection of additional areas not regulated as provincial parks and provide a focus for both the public and private sectors to contribute to the protection of Ontario's natural heritage.

SOURCE: Ontario Ministry of Natural Resources, 1978. Backgrounder: Land Use Guidelines. Southwestern Region.

BIBLIOGRAPHY

Allen, G., 1985. A Life Science Inventory of Cedar Creek Area of Natural and Scientific Interest. Ontario Ministry of Natural Resources, Chatham District.

Allen, G., 1985. A Life Science Inventory of Sinclair's Bush Area of Natural and Scientific Interest. Ontario Ministry of Natural Resources, Chatham District.

Argus, George, W., 1978. List of Canadian Flora Affected by CITES. CITES Reports No. 4. Canadian Wildlife Service, Environment Canada.

Argus, George, W. and David J. White, 1977. The Rare Vascular Plants of Ontario. Syllogeus No. 14, National Museums of Canada, Ottawa.

Banfield, A. W. F., 1962. "Notes on the Mammals of Pelee Island, Ontario". National Museums of Canada, Bulletin No. 183. Contribution to Zoology, 1960-61.

Beechey, T. J. and R. J. Davidson, 1980. Protection of Provincially Significant Natural Areas: The Nature Reserves System. Parks and Recreational Areas Branch, Ontario Ministry of Natural Resources.

Boivin, Bernard, 1953. "Additions to the Flora of the Erie Archipelago (Ontario)". Rhodora 55:225-226.

Botham, Wilfred, 1981. Plants of Essex County, A Preliminary List. Essex Region Conservation Authority.

Burgess, Robert L. and David M. Sharpe (eds.). Forest Island Dynamics in Man-Dominated Landscapes. Ecological Studies 41. Springer-Verlag, New York.

Calvert, E. W., 1920. "Notes on the Fauna and Flora of East and Middle Sister and North Harbour Islands, Lake Erie". Canadian Field Naturalist 34:109-110.

Campbell, C. A., 1976. Preliminary Ecological Reports on Lighthouse Point, Fish Point and East Sister Island Nature Reserves, Essex County, Ontario. Ontario Ministry of Natural Resources, Chatham District.

_____, 1976. Preliminary Field Study of the Blue Racer (Coluber constrictor foxi) on Pelee Island, Ontario. Wildlife Branch, Ontario Ministry of Natural Resources, Chatham District.

_____, 1976. Resource Inventory Report. Preliminary Report on Lighthouse Point, Fish Point and East Sister Island Nature Reserves, Essex County, Ontario. Ontario Ministry of Natural Resources, Chatham District.

_____, 1975. A Report on the Blue Racer in Ontario: Its status, requirements and management.

Campbell, Craig A. and Anton A. Reznicek, 1977. New Vascular Plant Records on Pelee and East Sister Islands, Essex County, Ontario. Canadian Field Naturalist 91(4):384-390.

Campbell, C. A. et al, 1971. Preliminary Pelee Island Inventory, Parks Branch, Ontario Department of Lands and Forests.

Catling, P. M., 1976. Spiranthes magnicamporum Sheviak, an Addition to the Orchids of Canada. Canadian Field Naturalist 90(4):467-470.

Contract, Roger and William M. Clay, 1963. A Reassessment of the Taxonomic Status of the Lake Erie Water Snake. Herpetologica 19(3):179-184.

Cook, F. R., 1964. Additional Specimens of the Small-mouthed Salamander from Pelee Island, Ontario. Canadian Field Naturalist 78(3):201-202.

Core, E. L., 1948. The Flora of the Erie Islands: An Annotated List of Vascular Plants. Franz Theodore Stone Laboratory, Ohio State University.

Curtis, John T., 1959. The Vegetation of Wisconsin: An Ordination of Plant Communities. University of Wisconsin Press, Madison, Wisconsin.

Dodge, C. K., 1914. Annotated List of Flowering Plants and Ferns of Point Pelee, Ontario and Neighbouring Districts. Government Printing Bureau, Ottawa. No. 1366.

_____, 1914. The Flowering Plants, Ferns and Fern Allies Growing Without Cultivation in Lambton County. Michigan Acad. Science. 16th Report.

Dowhan, R., H. Bremmer, D. Wilkes and A. Worminton, 1981. Field trip observations on Middle Island (Lake Erie), Ontario (May 22, 1981).

Duncan, T., 1973. Three Plant Species new to Canada on Pelee Island: Triosteum angustifolium L., Valerianella umbilitica (Sull.) Wood, and V. intermedia Dyal. Canadian Field Naturalist 87:261-265.

Duncan, Thomas and R. L. Stuckey, 1970. Changes in the Vascular Flora of Seven Small Islands in Western Lake Erie. Michigan Botanist 9(13):175-200.

Ecologistics Limited, 1978. Pelee Island: Blue Racer Study. Ontario Ministry of Natural Resources, Southwestern Region.

Essex Region Conservation Authority, 1980. Hillman Marsh Conservation Area. Essex Region Conservation Authority, Essex, Ontario.

_____, 1980. Fox Creek Conservation Area Master Plan. Essex Region Conservation Authority, Essex, Ontario.

_____, 1980. Ruscom Shores Conservation Area Master Plan. Essex Region Conservation Authority, Essex, Ontario.

_____, 1979. Canard Valley Conservation Area Master Plan. Essex Region Conservation Authority, Essex, Ontario.

_____, 1979. Cedar Creek Conservation Area Master Plan. Essex Region Conservation Authority, Essex, Ontario.

_____, 1975. Essex Region Conservation Report. Essex Region Conservation Authority, Essex, Ontario.

Fall, Michael, W. B. Jackson and M. L. Carpenter, 1968. The Occurrence and Origin of Small Mammals on the Islands and Peninsulas of Western Lake Erie. The Ohio Journal of Science 68(2):109-116.

Gaiser, L., 1966. A Survey of the Vascular Plants of Lambton County, Ontario Plant Research Institute, Canadian Department of Agriculture, Ottawa.

Gow, Duncan, 1980. Biological Research Projects - St. Clair National Wildlife Area. Canadian Wildlife Service.

Green, B. et al, 1979. Baseline Inventory of the Tilbury West Conservation Area. Lower Thames Valley Conservation Authority.

Hamilton, W. J., Jr., 1951. Notes on the Food and Reproduction of the Pelee Island Water Snake, Natrix sipedon insularum Conant and Clay. Canadian Field Naturalist 65:64-65.

Hanks, Sharon and D. E. Fairbrothers, 1969. Habitats and Associations of Opuntia compressa (Salisb.) Macbr. in New Jersey. Bull. Torr. Bot. Club 96(5):592-596.

Helliwell, D. R., 1976. The Effects of Size and Isolation on the Conservation Value of Wooded Sites in Britian. Journal Biogeography 3:407-416.

Hills, G. A., 1969. The Physiographic Approach to the Classification of Terrestrial Ecosystems with Respect to Representative Biological Communities. Ontario Department of Lands and Forests.

_____, 1960. Regional Site Research. Forestry Chronicle. December, 1960.

_____, 1959. A Ready Reference to the Description of the Land of Ontario and its Productivity. Division of Research, Ontario Department of Lands and Forests, Maple, Ontario.

Hudec, P. P., 1976. Environmental Impact on Shore Erosion, Groundwater, Noise and Dust by Pelee Island Quarries.

Indian and Northern Affairs, 1975. Checklist of Birds, Point Pelee National Park. Parks Canada.

Johnson, J. W. and W. Wannick, 1977. A Study of Biologically Significant Areas of the Essex Region. E.R.C.A., Essex, Ontario.

Jones, Lynd, 1964 . A Study of the Avifauna of the Lake Erie Islands (With Particular Reference to the Migration Phenomena). Wilson Bulletin 79:95-108.

Kellerman, W. R., 1904. Flora of Hen and Chicken Islands, 1903. The Ohio Naturalist 4(8):109-110.

Kelley, Alice H., 1978. Birds of Southeastern Michigan and Southwestern Ontario. Cranbrooke Institute of Science, Bloomfield Hills, Michigan.

Kershaw, L., J. K. Morton and J. M. Venn, 1976. A List of Rare or Endangered Species in the Canadian Flora - Vascular Plants. Bull. Can. Bot. Assoc. (University of Waterloo).

Kindale, E. W., 1937. Geology of Pelee Island and Adjacent Islands. Annual Report. Ontario Development of Mines 45(7):75-116.

Klinkenberg, B., 1983. The Theory of Island Biogeography With Special Reference to the Lake Erie Islands. M.Sc. Thesis, Department of Geography, University of Western Ontario.

Klinkenberg, R., 1981. A Reconnaissance Life Science Inventory of Holiday Beach Provincial Park. Ontario Ministry of Natural Resources, Southwestern Region (Draft).

_____, 1981. Field Notes.

_____, 1979. Preliminary Environmentally Sensitive Areas Study - Lower Thames Valley Conservation Authority Watershed. Lower Thames Valley Conservation Authority.

Klinkenberg, R. and B. Klinkenberg (in prep.). The Plants of Kent County, Ontario.

_____, 1984. Status report on Opuntia humifusa L. (Prickly Pea Cactus) in Canada. Committee on the status of Endangered Wildlife in Canada.

Klinkenberg, R. and J. Schwindt. McGeachy's Pond-Preliminary Inventory. Lower Thames Valley Conservation Authority.

Langlois, T. H., 1964. Amphibians and Reptiles of the Erie Islands. Ohio Journal of Science 64(1):11-25.

Lindsay, K. M., 1979. East Sister Island Provincial Nature Reserve. Life Science Inventory Check-sheet. Parks and Recreational Areas Section, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

_____, 1979. Fish Point Park Reserve. Life Science Inventory Check-sheet. Parks and Recreational Areas Sections, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

_____, 1979. Ojibway Prairie Provincial Nature Reserve. Life Science Inventory Check-sheet. Parks and Recreational Areas Section, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

_____, 1980. Lighthouse Point Park Reserve. Life Science Inventory Check-sheet. Parks and Recreational Areas Sections, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

_____, 1980. Rondeau Provincial Park. Life Science Inventory Check-sheet. Parks and Recreational Areas Sections, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

_____, 1981. An Identification and Evaluation of Life Science Candidate Nature Reserves in Site District 7-2, West of the Haldimand Clay Plain. Parks and Recreational Areas Section, Ontario Ministry of Natural Resources, Central Region and Southwestern Region.

_____, 1982. Rare Vascular Plants of Twelve Provincial Parks in the Deciduous Forest Region of Southern Ontario. Ontario Field Biologist 36(2):53-70.

Lindsay, K. M. and R. Hanna, 1980. Life Science Assessment of Parklands, Southwestern Region, Draft (1980). Ontario Ministry of Natural Resources, Central Region.

Lindsay, K. M. and R. Klinkenberg, 1979. Wheatley Provincial Park. Life Science Inventory Check-sheet. Parks and Recreational Areas Section, Central and Southwestern Regions, Ontario Ministry of Natural Resources.

Lloyd, Hayes, 1925. The Acclimatization of the Fox Squirrel at Pelee Island, Ontario. Canadian Field Naturalist 39(6):138.

Lovejoy, Thomas E, 1980. Discontinuous Wilderness: Minimum Areas for Conservation. Parks 5(2):13-15.

Lumsden, H. G., 1966. The Prairie Chicken in Southwestern Ontario. Canadian Field Naturalist 80(1):33-45.

Macaulay, A., 1979. Wildlife Management Plan - Eastern Mole, Point Pelee National Park. 14 pp. Canadian Wildlife Service.

MacLaren, James F., 1976. Metro-Windsor Waterfront Study, Research Report Vol. 1, Part 1. Essex Region Conservation Authority, Essex, Ontario.

Marion, McCormick, Hooper, 1967. Pelee Isand - Then and Now.

Maycock, P. F., 1973. Field Trip E, The Ojibway Prairie. Unpublished Report for the 8th Annual Meeting. Canadian Botanical Association.

_____, 1963. The Phytosociology of the Deciduous Forests of Extreme Southern Ontario. Canadian Journal of Botany 41:379-438.

_____, 1976. An Ecological Study of the Forests of Point Pelee National Park, Essex County, Ontario. Prepared by University of Toronto, Erindale College for Parks Canada, Ontario Region. 231 pp.

Maycock, P. F., D. Gregory and A. A. Reznicek, 1977. A Floristic and Ecological Survey of the Terrestrial Vegetation of Point Pelee National Park. Manuscript. Prepared for Parks Canada, Ontario Region. 207 pp.

McCutcheon, Richard, 1967. The Evolution of Pelee Island. Ontario Geography, 1:12-27.

McLaren, Ian A. and Everett B. Peterson, 1975. Ecological Reserves in Canada: The Work of IBP-CT. Nature Canada 4(2):22-32.

Mineau, Pierre and Rhonda Markel, 1981. The 1979 Spring Bird Migration and Other Vertebrates at Middle Island, Lake Erie. Ontario Field Biologist 35(1):13-21.

Morse, Larry E. and Mary Sue Henifin(eds.), 1981. Rare Plant Conservation: Geographical Data Organization. The New York Botanical Garden, Bronx, New York.

Oldham, M. J., 1982. Environmentally Significant Areas of the Essex Region. Preliminary Draft. Essex Region Conservation Authority, Essex, Ontario.

_____, 1983. Environmentally Significant Areas of the Essex Region. Conservation Authority, Essex, Ontario.

_____, 1982. Preliminary List of the Rare Vascular Plants of Essex County. Essex Region Conservation Authority, Essex, Ontario.

_____, 1982. Personal communication.

_____, 1981 and 1982. Field Trip Reports - Pelee Island.

_____, 1981. Collection Data, Erie Islands.

Ontario Ministry of Natural Resources, 1980 (Draft). A Framework for the Conservation of Ontario's Biological Heritage. Parks and Recreational Areas Branch, Queen's Park.

_____, 1978. Areas of Importance for Migratory Bird Protection in Ontario. Wildlife Branch, Queen's Park.

_____, 1978. Checklist of Amphibians and Reptiles. Rondeau Provincial Park. Chatham District, Ontario Ministry of Natural Resources.

_____, 1978. Checklist of Mammals. Rondeau Provincial Park. Chatham District, Ontario Ministry of Natural Resources.

_____, 1979. Checklist of Plants of Rondeau Provincial Park. Chatham District, Ontario Ministry of Natural Resources.

_____, 1977. Preliminary Life Science Report on Stone Road Prairie, Pelee Island. Chatham District, Ontario Ministry of Natural Resources.

_____, 1977. Sensitive Areas Report, (Pranovi and Degraff). Chatham District, Ontario Ministry of Natural Resources.

_____, 1976. Checklist of Birds. Rondeau Provincial Park. Chatham District, Ontario Ministry of Natural Resources.

_____, 1983. Backgrounder: Land Use Guidelines. Southwestern Region, Ontario Ministry of Natural Resources.

_____, 1981. Provincial Nature Reserves in Ontario. Parks and Recreational Areas Branch, Ontario Ministry of Natural Resources (includes summary sheets for twelve Provincial Nature Reserves).

Parks Canada, 1982. Point Pelee National Park Master Plan. Parks Canada, Cornwall, Ontario.

_____, 1981. Point Pelee National Park and Vicinity - Seasonal Status of Birds. Point Pelee National Park.

Park Planning Branch, 1976. Significant Natural Areas Along the Niagara Escarpment. A Report on Nature Reserve Candidates and Other Significant Natural Areas in the Niagara Escarpment Planning Area. Division of Parks, Ontario Ministry of Natural Resources.

Schaffner, John H., 1902. The Flora of Little Chicken Island. Ohio Naturalist 3(2):331-332.

Schnooberger, Irma, 1954. Some Interesting Species of Bryophytes From Islands in Lake Erie. Papers Michigan Acad. Science, Arts and Letters (1953 meeting).

Simms, D. A., 1976. Notes on the Distribution of Weasels in Southern Ontario, and on The Ecology of the Long-tailed Weasel, Mustela frenata, in Point Pelee National Park. Report to Parks Canada.

St. Clair Region Conservation Authority. Environmental Studies Volume I: Biological Inventory and Guide to Some Conservation Areas. Strathroy, Ontario.

Stewart, Darryl, 1977. Point Pelee, Canada's Deep South. Burns and MacEachern Ltd., Toronto, Canada.

Stirrett, George M., 1973. The Summer Birds of Point Pelee National Park, Ontario. Indian and Northern Affairs, Parks Canada.

Stirrett, George M., 1960. Plants of the Woodland Nature Trail, Point Pelee National Park. Canada Department of Northern Affairs and National Reserves.

Stuckey, R. L. and T. Duncan (in press). Flora of the Erie Islands: Its Origin, History and Change.

Tans, William, 1974. Priority Ranking of Biotic National Areas. Michigan Botanist 13:31-38.

Thaler, G. R. and R. C. Plowright, 1973. An Examination of the Floristic Zone Concept with Special Reference to the Northern Limit of the Carolinian Zone in Southern Ontario. Canadian Journal of Botany 51:1765-1789.

Thomas, E. S., 1949. A Population of Lake Erie Island Water Snakes. Copeia. 1:76.

Tracey, A. G., 1974. Lighthouse Point Nature Reserve. Environmental Planning Series, Miscellaneous Report. Ontario Ministry of Natural Resources, Park Planning Branch, Queen's Park.

_____, 1971. Inventory Report: Brief Geomorphology and Geology of East Sister Island, Lake Erie, Canada. Ontario Ministry of Natural Resources, Queen's Park.

Tracey, A. G., I. D. Macdonald and T. J. Beechey, 1971. East Sister Island, Essex County, Ontario - A Natural Science Inventory Report. Ontario Department of Lands and Forests.

University of Waterloo Environmentally Sensitive Areas Study Team, 1980. Lambton County Preliminary Environmentally Sensitive Areas Study. Lambton County Planning Department and the Ministry of the Environment.

Wagner, W. H. (Jr.), 1974. Dwarf Hackberry (Ulmaceae: Celtis tenuifolia) in the Great Lakes Region. Michigan Botanist 13:73-98.

Woodliffe, A., 1981. Notes on Pelee Island. Ontario Ministry of Natural Resources, Rondeau Provincial Park.

Wright, D. F., 1977. A Site Evaluation Scheme For Use In the Assessment of Potential Nature Reserves. Biol. Conserv. 11:293-305.

Zimmerman, R. C. and B. G. Thorn, 1982. Physiographic Plant Geography. Progress in Physical Geography 6(1):45-59.

MAP REFERENCES

Canada Department of Energy, Mines and Resources, Surveys and Mapping Branch, National Topographic System, 1:50,000 Map Series:

Middle Island	40G/10	1976
Pelee	40G/15	1973
Ridgetown	40I/5	1976
Bothwell	40I/12	1976
Romney	40J/1	1974
Essex	40J/2	1976
Amherstburg	40J/3	1971
Windsor	40J/6	1971
Chatham	40J/8	1976
Wallaceburg	40J/9	1976
Port Lambton	40J/10	1976

International Boundary Commission and the Army Survey Establishment, 1:50,000 Map Series

Belle River	40J/7W	1957
Belle River	40J/7E	1957

Ontario Department of Mines and Northern Affairs, Ontario Research Foundation, 1972. "Physiogrpahy of the Southwestern Portion of Southern Ontario", Map #2225, 1:254,440 to accompany, "The Physiography of Southern Ontario" by L. J. Chapman and D. F. Putnam.

Ontario Ministry of Natural Resources, Air Photo Library, 1978, 1:15,840.

MAPS NOT

FILMED

CARTES

OMISES